

Appendix A1-A80

PHILADELPHIA INVESTMENT BANKING COMPANY

**ADAMS GOLF SECURITIES LITIGATION
EXPERT REPORT OF R. ALAN MILLER**

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ADAMS GOLF SECURITIES LITIGATION

EXPERT REPORT OF R. ALAN MILLER

I. INTRODUCTION

1. I have been asked by counsel for the plaintiffs in this matter for my opinions as to:

A. The materiality to the investment community of the alleged omissions and misstatements described in the Second Consolidated and Amended Class Action Complaint (the "Complaint") in this action and/or which are identified herein,

B. Damages under Section 11 of the Securities Act of 1933,

C. Damages under Section 12 of the Securities Act of 1933 with respect to shares sold in the offering by Lehman Brothers,

D. Upon receipt of the expert report(s) of defendants, whether defendants have demonstrated that disclosure of the alleged omissions and misstatements described in the Consolidated and Amended Class Action Complaint in this action and/or which are identified herein did not affect the price at which Adams Golf ("Adams" or the "Company") stock traded at and following the time of its IPO, or the amount of any such effect, and/or whether they have provided any proper basis for establishing "negative loss causation" and, if so, any effect on damages thereof,

E. A description of the workings of the stock market and the roles of various participants therein, including particularly underwriting firms, and the standards and practices applicable thereto,

F. If the underwriter defendants assert their "due diligence" defense, the adequacy of the due diligence investigation conducted by the underwriters in connection with the IPO and issuance of the Prospectus,

More specifically, in connection with the underwriter's "due diligence" issue, I have been asked:

a. What type of information must properly be gathered by an underwriter regarding the issuer's business plan, business operations and prospects, products, distribution, management experience and competence, financial performance, condition and needs, manufacturing capabilities, industry trends and performance, risks of operations and achieving the business plan, etc. in order to properly assess whether the Prospectus disclosure is complete and not misleading?

b. What type of information is material to investors and what level of investigation into an issuer is appropriate to determine that all material information is obtained for inclusion, and in fact is included in the Prospectus?

c. Assuming the allegations of Plaintiffs as set forth in the Complaint to be true and considering the facts developed in the case to date, was the disclosure made in the Prospectus for Adams Golf's initial public offering adequate or misleading, or did it omit material information necessary to make it not misleading?

d. Was the due diligence investigation conducted by the underwriters in connection with this offering reasonable and adequate?

G. Possible rebuttal to defendants' experts.

II. BACKGROUND AND QUALIFICATIONS

2. I am President of Philadelphia Investment Banking Company ("PIBC") and am submitting this report summarizing my opinions in this matter.

3. A copy of my résumé is attached as Exhibit A hereto to outline my education, professional experience and expertise. I have testified at trial or hearings thirty times; I have been qualified or accepted as an expert on the operations of the securities market, damages, materiality issues, investment banking practices, valuations and related corporate finance matters in numerous federal and state courts nationwide beginning in 1977. I have provided many depositions and submitted numerous Declarations, Affidavits, and Reports on matters in these areas, including many dealing with investment banking practices, materiality and damage questions and/or the factors relevant to such studies.

4. PIBC has provided a wide range of corporate finance services to clients. These services include raising capital through private placements of debt and equity financings; advisory services re: public offerings of securities; merger, acquisition and divestiture services; evaluation and economic analysis services; consulting and litigation support; and other advisory services.

5. PIBC and its staff perform a considerable amount of work in the area of evaluation of businesses and securities and the factors involved in such evaluation. These are done on a formal basis for a wide variety of purposes, as well as continuously on an informal basis in the process of performing our corporate finance functions such as raising capital, assisting in mergers and acquisitions, and providing advisory services. The factors used in such evaluations and their importance and materiality to the investment community are areas in which I have developed expertise and have had substantial experience over the last thirty-three

years. Additionally, we have prepared a substantial number of analyses of market impact and damages in connection with numerous shareholder litigations.

6. I received a B.S. in Economics from Cornell University in 1970, and a Masters in Business Administration (major in Financial Accounting) from the Wharton School of Finance and Commerce of the University of Pennsylvania in 1973. I have attended various Practising Law Institute and similar programs and seminars on topics such as corporate finance and due diligence.

7. I have actively worked in the investment banking field for 33 years. My work experience includes:

- Howard & Co., a corporate finance research and consulting firm, Philadelphia, 1972 to 1976. Performed research, writing and consulting on a wide range of corporate finance topics including bank debt, long term debt—private and public, mergers and acquisitions, equity capital—private and public, going public, being public, etc. Topics included cost of each type of capital or project, terms, advantages and disadvantages to issuer and financing party, sources of capital, roles of participants (agents, underwriters, counsel, accountants, rating agencies, regulators, issuers, sources of financing), time to accomplish tasks, etc. Such research included a detailed and comprehensive study of 550 IPO's that had occurred in the five years prior to 1973; issues studied included determination of required disclosures, materiality, due diligence practices and procedures, terms and pricing, roles of participants, costs, timing, other issues that arose. Authored and/or edited numerous articles in a series of newsletters on above topics and prepared research for presentation at seminars and to clients. Consultation to clients on corporate finance projects and issues.
- Butcher and Singer, a major regional investment banking firm headquartered in Philadelphia, corporate finance department 1976 to 1980. Performed corporate finance functions for investment banking/brokerage firm. Work included private placements and public offerings of debt and equity securities, merger and acquisition work, evaluations, fairness opinions, tender offer management, creating and structuring leasing transactions, corporate finance advisory and consulting work. Early work on "securitization" financing structures of leasing transactions for railroad and

municipal equipment. Obtained professional license as registered representative.

- Philadelphia Capital Advisors, a corporate finance services group of Philadelphia National Bank, 1980 to 1983. Continued corporate finance functions, except for public offering activities, for a wide range of clients. Supervised and instructed other group members.
- Philadelphia Investment Banking Company, a corporate finance services firm, 1983 to present. Continued corporate finance activities, with increasing work in litigation support.

8. I have extensively researched and studied the applicable professional standards, customs and practices within the investment banking profession. I have been accepted as an expert witness in various contested matters involving professional standards, customs and practices within the investment banking profession. As an investment banker, I have functioned as an underwriter and dealer-manager and have advised clients concerning mergers and acquisitions and financings (including debt and equity, in both public and private offerings). I am familiar with the applicable professional standards, customs and practices within the investment banking community as they relate to the underwriting of corporate securities.

9. At PIBC, we subscribe to and regularly review a wide range of business, financial and legal publications, including many which bear on the topics of investment banker and underwriter performance, regulation, standards and practices.

10. PIBC is being compensated for the time spent by its personnel on this matter at its normal hourly rates on a non-contingent basis. Currently my rate is \$495 per hour. Others in the firm are billed at rates from \$75 to \$435 per hour.

11. We have familiarized ourselves with the market conditions which existed for Adams in connection with the IPO during the Class Period (July 10, 1998 through October 22, 1998) and thereafter, as well as stock market and economic factors pertaining to this industry, and in general. The following is among the information we have reviewed to date:

- Second Consolidated and Amended Class Action Complaint
- Golf Data Tech Market Share Information—Monthly Reports for 1998
- Articles, press releases, brokerage firm analyst reports on Adams Golf
- Costco Purchase Order and Sales Data
- Adams Golf 1999 Proxy Statement
- Daily stock price and volume data on Adams Golf, Callaway, Teardrop, Aldila, Coastcast, Arnold Palmer and Golden Bear
- Daily Index data on Bloomberg Golf Index, NASDAQ
- Callaway Golf 10-K for 1997
- Deposition transcripts and exhibits of all deponents except plaintiffs
- Opinion of Christiana Ochoa

III. ANALYSIS AND OPINIONS

12. I will be prepared to present at trial a description of common stocks; the markets for such securities; the participants in such markets including, among others, issuers, brokerage firms, traders and specialists, research analysts, retail customers, institutions and regulators; and how these parties interact to evaluate and trade securities at price levels. Such information may include the following:

- A. A description of common stock as a share of ownership in a company which entitles the holder to a share of its earnings – either paid out as a dividend or reinvested in the company.
- B. How stock in a company becomes publicly traded, including the roles of underwriters, brokers, attorneys, accountants, regulators, and others.
- C. How information is transmitted to market participants, including through filings with the Securities and Exchange Commission (the “SEC”), newspaper articles, financial and trade press articles, brokerage firm analyst reports, and through “leakage” and oral communications among market participants and others.
- D. The presence of institutional investors and their analytical functions.
- E. How the investment community prices securities and how the information described above causes investors and potential investors to analyze information versus the (contemporaneous) price and decide to buy or sell, creating supply and demand pressures, and the role of brokerage firm analysts in this process.

13. There can be no question that the risk and impact of gray marketing were material to investors or potential investors in Adams Golf. The Company, like most public companies, was valued based on expected future earnings and cash flows. Factors affecting the generation of earnings and cash flows, and their anticipated growth rates, are of primary importance to the investment community. Gray marketing reduces profit margins by causing a company to take costly steps to protect authorized retailers’ margins. If the retailers have to match lower sales prices from gray market sellers, their wholesale price must be reduced (or some other incentive provided) to keep margins intact. Lowered retailer’s margins often

translate into lower sales. Earnings are therefore reduced directly by the existence of gray marketing.

The Company itself recognized the importance of gray marketing in at least the following ways:

A. It issued a June 9, 1998 press release to reassure authorized retailers that Adams was protecting them from the possibility of gray marketing (according to an interview with Barney Adams, reported in a Golf Pro magazine article which appeared in an issue with a cover date of August 1, 1998, the contents of which interview also reflect the importance of gray marketing).

B. Barney Adams issued an internal memorandum dated October 8, 1998 which stated: "One thing that is hurting us badly is Costco. It was a problem before, but has greatly escalated in the last two weeks and will be very difficult in Q4 (Christmas)." "We estimate a negative sales effect in Q4 of 20%-25% . . ."

C. The minutes of the Special Meeting of the Board of Directors of October 19, 1998 show the major topic to have been the substantial negative effects of gray marketing.

D. On October 22, 1998 Adams Golf disclosed "recent gray market distribution of our products" and its effect on future sales.

E. On January 7, 1999, the Company disclosed in a press release that results had been and would continue to be materially adversely affected by gray marketing. Results were disappointing in part because of "the gray market distribution of its products to a membership warehouse club".

F. In March 1999, in the Company's Form 10-K Report for 1998, the Company said it "does not believe the gray marketing of its products can be totally eliminated".

14. In a memorandum to Adams Golf dated July 29, 1998, Lehman Brothers personnel advised Adams to be prepared to answer investor questions about gray marketing. The Lehman Brothers analyst covering Adams Golf also expressed a concern (on August 28, 1998) about Tight Lies appearing in Costco wholesale stores with increasing regularity. However, this item appeared on page 27 of a 28-page analyst report, as virtually the only cautionary note in the entire report.

15. Considering the importance attached to gray marketing by Adams Golf, and its obviously significant impact on margins and earnings, it is clear that the IPO offering price would have been substantially lowered if the risk and extent of gray marketing had been properly disclosed in the prospectus. In determining the price at which an IPO is sold, a preliminary prospectus, generally known as a red herring, is circulated by the underwriters to prospective investors to generate indications of interest in the stock. Feedback from these investors in the form of comments as well as demand for shares is then reflected in the IPO price set by the underwriter. Strong indications of interest and demand for shares will cause an increase in price; weak demand will cause a reduction in price.

16. Information concerning gray marketing which existed in the marketplace and was available to at least some market participants included (at least) the following.

A. Costco national purchase orders, indicating Adams authorized dealers' purchases of Adams clubs at the behest of Costco, were issued for thousands of clubs, and Costco sales data shows extensive sales both before, and immediately after, the IPO. At a

minimum, the people who would have known about this information would have been Costco personnel and customers and the various Adams distributors whom Costco directed to purchase the clubs. It would be surprising if there were not some significant overlap between these various parties and investors in Adams Golf stock, as it is common practice with a niche company such as Adams Golf, for its stockholders to be people with an interest in such a market or company, such as avid golfers, distributors, retailers, suppliers, and others with a likely knowledge of the company and the market. Accordingly, knowledge among Adams authorized dealers that widespread gray marketing was occurring may have represented important leakage to the market for Adams' stock.

B. The knowledge of gray marketing possessed by the sales and marketing personnel at Adams who were involved in dealing with the gray market issues.

C. The Golf Pro article, which was apparently available in the middle of July and discussed gray market concerns. If, as almost always occurs with magazines, this arrived at subscribers/recipients and/or was purchased at newsstands over a period of days to weeks preceding the cover date, it corresponds closely in time with the Adams stock price decline. Adams' stock price declined substantially during mid and late July.

D. An August 4 Nations Bank analyst report states that when it was a new company, Callaway's shares were "often volatile in response to concerns such as 'I saw a Big Bertha in Costco'", and that "We expect Adams stock to also be volatile".

E. Documents reflecting the underwriters' and their customers' trading activity in Adams stock throughout the aftermarket, implying that the underwriters' knowledge would have been reflected in the stock price.

F. Lehman Brothers' August 28, 1998 report mentions speaking with golf shops over "the past three months" as the basis for their comments, including the appearance of Adams clubs in Costco as "an extremely serious issue that Adams is working hard to correct".

17. The materiality of the risks and extent of gray marketing is further demonstrated by price declines following the IPO related to various partial disclosures of these matters, viewed through appropriate disclosure event windows.

18. To determine whether defendants have met their burden and established any negative loss causation, I will review their expert report(s).

UNDERWRITER DUE DILIGENCE

19. The type of information normally required by prospective underwriters in order to assess a prospective issuer and insure adequate disclosure would include, at least, a complete business plan or other materials describing in detail the following:

- The products, services, or areas of operation provided
- The market and competitive positioning including price and performance analysis versus alternative and competitive products
- Industry information, including trend data and analyses
- Proposed channels of distribution and the economics thereof for participants
- Risks to achieving the business plan and each major element thereof
- Management background and experience including detailed and comprehensive historical chronological biographies and references
- Manufacturing processes, facilities, or arrangements

- Historical financial performance and trends, financial condition and projected needs and results of operations, and the underlying assumptions. Factors affecting growth rates and profitability are among the most important to analyze.
- Any relevant litigation, regulation, insurance or environmental concerns

With respect to each of the above areas, sufficient detail should be obtained such that the underwriter can understand how each will impact the ability of the company to generate revenues, earnings and cash going forward. An underwriter need not become an engineer or industry expert or other operational specialist, but needs to understand the critical elements of the business with respect to generating revenues and earnings, technology, competition, staffing and personnel needs, marketing, etc. to ensure that the company has the best chance to succeed and meet its business plan, or be able to adequately disclose what shortcomings and risks exist in each area. Management's knowledge of its business is also an essential element of success; the underwriters need to assess management's knowledge and competence to accurately describe the company's business and risks.

The proper attitude of the underwriter has to be one of skepticism when reviewing information provided by the issuer, particularly with respect to a new company experiencing substantial and rapid growth. That is, independent confirmation of representations made by the issuer for inclusion in the Prospectus should be able to be obtained from unrelated parties, or tested in some fashion. Therefore, reviewing industry or market research reports, consulting with industry or product market experts, independent product tests, exploring sales and distribution channels, interviewing management and checking references are standard practice in assessing a prospective issuer and ensuring that the disclosures related thereto would be complete, accurate, and not misleading and that pricing would be done properly.

20. The standard in the investment banking industry for the appropriate level of investigation necessary to obtain sufficient knowledge of the issuer's business to be able to describe it accurately and completely is that of materiality to investors. Investors are most interested in the prospective future revenues and earnings ability of companies whose common stock they purchase. Therefore, any factors critical to generating revenues and earnings in the future such as product/service attributes, industry conditions and trends, competitive posture, marketing, pricing and profitability, cost of manufacture, management competence, etc., are of extreme importance to investors.

21. In addition, with further reference to my opinion as to whether defendants have met their burden of having performed a reasonable and adequate due diligence investigation, I will review any expert reports or evidence regarding that topic.

22. Having reviewed the information listed heretofore, it is my opinion that disclosure in the Prospectus was inadequate in at least the area of the risks and extent of gray marketing and their potential significantly negative effect on the Company.

SECTION 11 DAMAGES

23. Section 11 damages in this matter are measured by the difference between the price paid (capped by the Offering Price) and the price received upon sale if sold at a loss, plus interest. The price during the Class Period would not have been lower than the true value at time of suit, nor did it recover thereafter. As shown in Exhibit B, that figure is \$84,090,000 (without interest). Adding interest at the appropriate rate of 9.75% (simple, from November 1998 to June 2006 inclusive) would increase damages by \$62,857,275 to a total of \$146,947,275. Damages could be reduced by any "negative loss causation" if successfully demonstrated by defendants.

SECTION 12 DAMAGES

24. We have calculated damages under Section 12 with regards to shares sold by Lehman Brothers in the underwriting. Those damages total \$5,579,215, before interest. Adding interest would increase damages by \$4,170,463 to total \$9,749,678. See Exhibit B.

25. The following exhibits are attached hereto:

Exhibit A	Resume of R. Alan Miller
Exhibit B	Adams Golf Estimated Section 11 and 12 Damages— PIBC Market Simulation Methodology

26. We have generated this report in advance of the final completion of fact discovery, and before reviewing defendants' expert report(s), which may cause us to modify or amplify views expressed in this report.

7/12/06
Date

R. Alan Miller
R. Alan Miller, President
Philadelphia Investment Banking Company

EXHIBIT A

RESUME OF R. ALAN MILLER

EXHIBIT A

PHILADELPHIA INVESTMENT BANKING COMPANY

R. ALAN MILLER

President

Mr. Miller was a founder of PIBC in September of 1983. A summary of PIBC's services is attached.

From November of 1980 until the formation of PIBC, Mr. Miller served as Senior Vice President of Philadelphia Capital Advisors, the corporate finance services division of the Philadelphia National Bank. At Philadelphia Capital Advisors, Mr. Miller was responsible for corporate finance activities, including private placements of debt and equity capital; mergers, acquisitions and divestitures; financial consulting, evaluation and expert witness services; leasing and other alternate sources of capital; and for providing assistance and advice to PCA's staff on their projects.

Prior to joining Philadelphia Capital Advisors, Mr. Miller was Vice President, Corporate Finance at Butcher & Singer, Inc., an investment banking firm based in Philadelphia, from 1976 to 1980. At Butcher & Singer his duties included private placements of debt and equity capital; mergers and acquisitions; public offerings of securities; leasing, evaluations, financial consulting and expert witness assignments.

From 1972 to 1976 Mr. Miller was a Senior Associate and General Manager with Howard & Co., a Philadelphia based financial consulting company. Assignments there included research and consulting on a wide range of corporate finance topics. Mr. Miller also edited and wrote many of the articles for a series of newsletters on corporate finance published by Howard & Co.

Mr. Miller received a B.S. in Economics from Cornell University in 1970 and an M.B.A. in Financial Accounting from the Wharton School of the University of Pennsylvania in 1973. He served in the United States Marine Corps Reserve from 1970 through 1976. Mr. Miller has authored several articles on various corporate finance topics and has been a guest lecturer at the Wharton School and La Salle University. He currently lives in Wayne, Pa.

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PHILADELPHIA INVESTMENT BANKING COMPANY

Summary of Services

The following are specific categories of PIBC services. All situations are unique; we invite your inquiries as to our capabilities.

FINANCINGS

- Private debt and equity financings
- Joint ventures
- "Operational" or trade financing
- Marketing/distribution arrangements as capital sources
- Public offerings--advisory
- Leasing and "managed" equipment financing
- Other specialized financings

EVALUATIONS AND ECONOMIC ANALYSES

- Litigation consulting and support
- General business valuations
- Merger, acquisition and divestiture analyses
- Shareholder representation
- Fairness opinions
- Estate or gift tax; estate planning
- Marital or property settlement; other dispute resolution
- ESOP transactions/annual evaluations; corporate repurchases
- Recapitalizations
- Assistance to fiduciaries
- Offeree representative, prospective investor analysis

MERGERS AND ACQUISITIONS, LEVERAGED AND MANAGEMENT BUYOUTS

**REFINANCING, TURNAROUND "PROJECT MANAGEMENT" AND WORKOUT
FINANCING; BANKRUPTCY PLANS**

TRUSTEE/FIDUCIARY, ASSET MANAGER ASSIGNMENTS

**CORPORATE FINANCIAL ADVISORY; CONSULTING; "WORKING DIRECTOR"
ASSIGNMENTS**

R. ALAN MILLER

Expert Witness Testimony in Court

1. Vadakin v. Vadakin. State Court of Ohio Court System, Marietta, Ohio, 1977.
2. Baer v. Fidelco Growth Investors. Court of Common Pleas, Montgomery County, PA, 1978.
3. Shanno v. Magee Industrial Enterprises, Inc. United States District Court for the Eastern District of Pennsylvania. Civil Action 79-2038, J. Fullam, October 12, 1983.
4. Raymond K. Peil v. Speiser, et al. (Health-Chem Securities Litigation). United States District Court for the Eastern District of Pennsylvania. Civil Action No. 82-1289, J. O'Neill, April 1985.
5. Gordon McShane, et al. v. Pennwalt Corporation, et al. United States District Court for the Eastern District of Pennsylvania. Civil Action No. 85-6020, J. Ludwig, March 10, 1986.
6. Harry Lewis v. John D. DePaul, et al. (Lehigh Press Litigation). Court of Common Pleas, Philadelphia County, PA. Civil Action No. 4760, November Term, 1986. March 5, 1987.
7. California Natural v. Nestle. United States District Court for the District of New Jersey, J. Brotman, June 1987.
8. GCA Corporation Securities Litigation. United States District Court for the District of Massachusetts, Master File No. 85-4693-c, J. Caffrey. October 1987.
9. Van de Walle v. Unimation, et al. Court of Chancery of the State of Delaware, New Castle County. Civil Action No. 7046, Vice Chancellor Jack B. Jacobs, February and April 1989.
10. U.S. Healthcare Securities Litigation. United States District Court for the Eastern District of Pennsylvania. Civil Action No. 88-0559, J. McGlynn, April 1989.
11. California Natural v. Nestle. United States District Court for the District of New Jersey (Camden). J. Brotman. April 1989.
12. IA Holdings Corporation Dissenter's Appraisal Action. Court of Common Pleas, Delaware County, Pennsylvania. Civil Action 86-14981, J. Lawhorne, October 1989.

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13. Kulicke & Soffa Securities Litigation. United States District Court for the Eastern District of Pennsylvania. Master File No. 86-1656, J. Ditter, March 1990.
14. McKinley Allsopp, Inc. v. Jetborne International, Inc. United States District Court for the Southern District of New York. 89 CIV. 1489 (DNC), J. Leval, May 1990.
15. Kay Jewelers Securities Litigation. United States District Court for the Eastern District of Virginia, Alexandria Division. Civil Action No. 90-1663-A through 90-1688-A, J. Bryan, June 1991.
16. Pennsylvania Enterprises Securities Litigation (Lindner Fund, et al. v. Pollock, et al.). United States District Court for the Eastern District of Pennsylvania. Civil Action No. 91-6901, J. VanArtsdalen, December 1991.
17. O & M Investment Partners v. Windon, et al. United States District Court for the Eastern District of Pennsylvania. Civil Action No. 91-CV1970, J. Robert F. Kelly, September 1992.
18. National Media (Derivative) Securities Litigation. United States District Court for the Eastern District of Pennsylvania. Civil Action No. 90-8113, J. Bechtle, November 1992.
19. First Pennsylvania Securities Litigation (Grossman v. First Pennsylvania Corporation, et al.). United States District Court for the Eastern District of Pennsylvania. Civil Action No. 89-9234, J. Brody, July 1993.
20. In the Matter of R. Glen Fenstermacher, et al., Debtors. United States Bankruptcy Court for the District of New Jersey. Case No. 93-13041, J. Wizmur, July 1993.
21. Sunkyoung America, Inc. v. Omega Sports, Inc. United States District Court for the Eastern District of Pennsylvania. Civil Action No. 93-CV-5355, J. Van Antwerpen, September 1994.
22. Geriatric & Medical Centers Securities Litigation (Hoffman v. Geriatric & Medical Centers, Inc., et al.). United States District Court for the Eastern District of Pennsylvania. Civil Action No. 93-CV-2129, J. Fullam, May and June, 1995.
23. U.S. Banknote Securities Litigation (Vladimir v. U.S. Banknote and Morris Weissman). United States District Court for the Southern District of New York. 94 Civ. 0255(MGC), J. Cedarbaum, January 1997.

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24. Lewin, et al. v. Saidel, et al. (MetroBank Proxy/Securities Litigation). Court of Common Pleas, County of Philadelphia, PA. No. 96-04-SD-0015. J. Levin, November 1997.
25. Kenney (as Ch. 11 Trustee for Daisy Systems Corp., et al.) v. Bear Stearns & Co., Inc. United States District Court for the Northern District of California, Oakland Division. No. C92-1845-DLJ, J. Jensen, April 1998.
26. Alpha Group Consultants, Ltd., et al., and Pension Reserves Investment Trust Fund of the Commonwealth of Massachusetts v. Bear Stearns & Co., Inc. United States District Court for the Southern District of California. Case No. CV-91-00143-IEG, J. Gonzalez, July and August, 1998.
27. Fightertown Entertainment, Inc. v. Robertson, Stephens & Company, et al. Superior Court of the State of California In and For the County of Orange. No. 750511, J. Kline, October 1998.
28. First Pension Cases I—Murray v. Belka. Superior Court of the State of California In and For the County of Orange. No. 740706, J. Firmat, April 2000.
29. Krogman, et al. v. Sterritt, et al. (Continental Investment Corp. Securities Litigation). United States District Court for the Northern District of Texas. Civil Action No. 3-98-CV 2895-T, J. Lynn, November 2000.
30. Heiser, et al., v. Southeastern Pennsylvania Transportation Authority. City of Philadelphia Court of Common Pleas. Case No. 9907-3167, J. Shepard, December 2002.
31. PolyMedica Corp. Securities Litigation. United States District Court for the District of Massachusetts, Civil Action No. 00-12426 REK, J. Young, March 23, 2006.

R. ALAN MILLER

Deposition and Arbitration Testimony

The following list is of matters in which I have given testimony at deposition or in arbitration since January 1, 1990.

Depositions

1. Shearson/Indian Wells Securities Litigation. United States District Court for the Western District of Washington at Seattle. No. C88-695WD, May 14, 15 and 16, 1990.
2. Kay Jewelers Securities Litigation. United States District Court for the Eastern District of Virginia, Alexandria Division. Civil Action No. 90-1663-A through 90-1688-A, May 15, 1991.
3. Rospatch Securities Litigation. United States District Court for the Western District of Michigan, Southern Division. No. 1:90-CV-805, February 4, 1992, March 6, 1992.
4. National Media (Derivative) Securities Litigation. United States District Court for the Eastern District of Pennsylvania. Civil Action No. 90-8113, October 21, 1992.
5. Federal Express Securities Litigation. United States District Court for the Western District of Tennessee. Master File No. 90-2359-4B, November 24, 1992.
6. Gillette Securities Litigation. United States District Court for the District of Massachusetts. Civil Action No. 88-1858-K, March 12 and 26, 1993.
7. HBO & Co. Securities Litigation. United States District Court for the Northern District of Georgia, Atlantic Division. Civil Action No. 1:87-CV-657A-JTC, May 6, 1993.
8. American Dental Laser Securities Litigation. United States District Court for the Eastern District of Michigan, Southern Division. Master File No. 92-CV-71917-DT, August 3, 11, 18, and 31, 1993.
9. Mesa Petroleum Securities Litigation. United States District Court for the Northern District of Texas, Dallas Division. Case No. 3:91-CV-2376-x, March 28, 1994.
10. Geriatric and Medical Centers Securities Litigation. United States District Court for the Eastern District of Pennsylvania. Civil Action Nos. 92-CV-5113 and 93-CV-2129, October 10 and 20, 1994.

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11. Moore Medical Corporation Securities Litigation. United States District Court for the Southern District of New York. Civil Action No. 91 Civ. 3701 (ML), November 3 and 4, 1994.
12. Cellcor Securities Litigation. Court of Chancery of the State of Delaware in and for New Castle County. Civil Action No. 12725, April 12 and 13, 1995.
13. New America Securities Litigation. United States District Court for the District of Massachusetts. Civil Action No. 90-10782-MA, May 11 and 12, 1995.
14. U.S. Banknote Securities Litigation. United States District Court for the Southern District of New York. Civil Action No. 94 Civ. 0255(MGC), February 23, 1996.
15. U.S. Wireless Data Securities Litigation. United States District Court for the District of Colorado. Civil Action No. 94-2-2258, April 9, 1996.
16. Bay Financial Corporation Securities Litigation. United States District Court for the District of Massachusetts. Civil Action Master File No. 89 2377-WD, April 18 and 19, 1996.
17. American Mobile Systems, Inc. Securities Litigation. United States District Court for the Eastern District of Pennsylvania. Civil Action No. 92-1782, May 21, 1996.
18. Clinicorp Securities Litigation. United States District Court for the Southern District of Florida--West Palm Beach Division. 94-8163-CIV-RYSKAMP, July 9, 1996.
19. Circle K Bankruptcy Litigation. United States Bankruptcy Court for the District of Arizona. Bankruptcy Court Nos. 90-5052-PHX-GBN to 90-5075-PHX-GBN Jointly Administered, Advisory Proceeding No. 93-1123, August 8, 1996.
20. People's Bank Securities Litigation. United States District Court, District of Connecticut. Civil Action No. B-90-600 (JAC), February 5 and 6, 1997.
21. Castle Pines Securities Litigation. District Court, County of Douglas, Colorado. Civil Action No. 91-CV-429, Division 2, August 21, 1997.
22. Thomas P. Jasin v. Brown & Company Securities Corporation. United States District Court for the Eastern District of Pennsylvania. Civil Action No. 96-CV-6872, October 31, 1997.
23. Goldfine v. Steinberg, et al. (Shearson) Litigation. Circuit Court of Cook County, Illinois. No. 93L5223, February 11 and 12, 1998.

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24. Kenney (as Ch. 11 trustee for Daisy Systems Corp., et al.) vs. Bear Stearns & Co., Inc. United States District Court for the Northern District of California, Oakland Division. Case No. C-92-1845-DLJ, March 20, 1998.
25. Rolite, Inc. v. Wheelabrator Environmental Systems, Inc. and WMX Technologies, Inc. United States District Court for the Eastern District of Pennsylvania, No. 94-CV-5894, April 29, 1998.
26. Alpha Group Consultants, Ltd., et al., and Pension Reserves Investment Trust Fund of the Commonwealth of Massachusetts v. Bear Stearns & Co., Inc. United States District Court for the Southern District of California, Case No. CV-91-00143-IEG (JAH), July 8, 1998.
27. Fightertown Entertainment, Inc. v. Robertson, Stephens & Co. Superior Court of the State of California for the County of Orange, Case No. 750511, August 6 and 7, 1998.
28. Kidder Peabody Securities Litigation. United States District Court for the Southern District of New York, Master File Civil Action No. 94-CV-3954 (BSJ) (MHD), January 28, 1999 and February 18, 1999.
29. Micrion Corporation Securities Litigation. United States District Court for the District of Massachusetts, No. 96-11596-REK, May 7, 1999.
30. Mizel IRA et al. v. Butler et al.—Avatex Derivative Litigation. Supreme Court of the State of New York—County of New York, Index No. 602773/98, September 8, 1999.
31. First Pension Cases—Coordination Proceeding No. 3131 (Murray v. Belka et al.). Superior Court of the State of California for the County of Orange, No. 740706, December 15, 16 and 17, 1999.
32. Miller Industries Securities Litigation. United States District Court for the Northern District of Georgia, Atlanta Division, Civil Action, Master File No. 1:97-CV-2811 (TWT), March 15 and 16, 2000.
33. Continental Investment Corp. Securities Litigation. United States District Court for the Northern District of Texas, Civil Action No. 3-98-CV2895-T, May 8, 2000.
34. IKON Office Solutions, Inc. Securities Litigation. United States District Court for the Eastern District of Pennsylvania, MDL Docket No. 1318 (MK) No. 98-CV-4286, September 27 and 28, 2000.
35. PaineWebber Incorporated v. NetRatings, Inc. Supreme Court of the State of New York, County of New York, Index No. 99/605036, October 20, 2000.

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36. Jacobs, et al. v. Coopers & Lybrand, L.L.P., et al. (Happiness Express Securities Litigation). United States District Court for the Southern District of New York, Case No. 97 CIV. 3374 (RPP), January 18, 2001.
37. Robert Mowbray, et al. v. Waste Management Holdings, Inc. United States District Court for the District of Massachusetts, Civil Action No. 98-11534-WG4, March 22 and 23, 2001.
38. Lee Adams v. Western Micro Technology, Inc., et al. Superior Court of the State of California, In and For the County of Orange, Case No. 810801, June 8, 2001.
39. BankAmerica Corp. Securities Litigation. United States District Court for the Eastern District of Missouri—Eastern Division, MDL No. 1264 (Judge Nangle), July 26 and 27, and December 6, 2001.
40. Sternbach and Ancowitz v. Network Associates and Lichtman. United States District Court for the District of New Jersey, Civil Action No. CIV. 00-1576 (JCL), August 1, 2001.
41. Sunbeam Corporation Securities Litigation (Debentures). United States District Court for the Southern District of Florida, Miami Division, MDL No. 1297, November 1 and 2, 2001.
42. Infocure Corporation Litigation. United States District Court for the Northern District of Georgia, Atlanta Division, C.A. No. 01-CV-0001-TWT, November 14, 2001.
43. Equimed, Inc. Securities Litigation. United States District Court for the Eastern District of Pennsylvania, Master File No. 98-CV-5374 (NS), December 20, 2001.
44. Merz Pharmaceuticals v. Accupac, Inc. United States District Court for the Eastern District of Pennsylvania, Civil Action No. 01-CV-1668, January 23, 2002.
45. Smallworldwide PLC Securities Litigation. United States District Court for the District of Colorado, Civil Action No. 99-K-1254, March 28 and April 24, 2002.
46. PSINet Securities Litigation. United States District Court for the Eastern District of Virginia, Alexandria Division, Civil Action No. 00-1850-A, January 8, 2003.
47. DaimlerChrysler Securities Litigation. United States District Court for the District of Delaware, Master Docket No. 00-0993 (JJF), January 13, 2003.

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48. Hayden v. FleetBoston Financial Corporation and Robertson Stephens, Inc. JAMS Arbitration, August 27, 2003.
49. Rollins-Safety Kleen (Proxy) Litigation. United States District Court for the District of South Carolina, Civil Action No. 3:00-1343-17, October 1, 2003.
50. AMF Bowling Securities Litigation. United States District Court for the Southern District of New York, Civil Action No. 99 CIV 3023 (DL), December 17, 2003.
51. Telxon Corporation Securities Litigation and Hayman v. PricewaterhouseCoopers, LLP. United States District Court for the Northern District of Ohio—Eastern Division, Case No. 5:98-CV-2876, January 13 and 14, 2004.
52. Apropos Securities Litigation. United States District Court for the Northern District of Illinois, Civil Action No. 01C8406, January 30, 2004.
53. Safeguard Scientifics Securities Litigation. United States District Court for the Eastern District of Pennsylvania, Civil Action 01-3208, June 29, 2004.
54. Official Committee of Unsecured Creditors of Tri Valley Growers vs. Deloitte & Touche LLP. Superior Court of the State of California, County of San Francisco, No. 406914, August 25 and 26, 2004.
55. Levitan v. McCoy, et al. (Bank One Securities Litigation). United States District Court for the Northern District of Illinois—Eastern Division, Civil Action No. 00-C-5096, May 4, 2005.
56. Commercial Financial Services, Inc. v. Chase Securities, Inc. United States District Court for the Northern District of Oklahoma, May 25, 2005.
57. Ahearn v. Credit Suisse First Boston (Winstar). United States District Court for the District of Massachusetts, No. 03-CV-10956 (JLT), January 3, 2006.
58. Touch America Holdings, Inc. (Montana Power Company) ERISA Litigation. United States District Court for the District of Montana—Butte Division, No. CV-02-106-BU-SHE, June 27, 2006.

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Arbitrations

1. **Liberty University v. Kemper.** American Arbitration Association. AAA Arbitration No. 11-136-00194-91, November 21, 1991.
2. **Raymond James Customer Arbitration.** NYSE. November 17 and 18, 1992. NYSE Arbitration Docket No. 1991-001538.
3. **Saponaro Customer Arbitration.** NASD. March 8, 1996. NASD No. 94-01491.
4. **Kennilworth Partners v. Bear Stearns.** NASD. February 26 and 27, 2003. NASD No. 00-01232.
5. **Hayden v. FleetBoston Financial Corporation and Robertson Stephens, Inc.** JAMS Arbitration, September 9, 2003.

EXHIBIT B

**ADAMS GOLF
ESTIMATED SECTION 11 AND 12 DAMAGES
PIBC MARKET SIMULATION METHODOLOGY**

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PIBC MARKET SIMULATION METHODOLOGY

ADAMS GOLF, INC.

PIBC utilizes its proprietary Market Simulation Methodology to estimate the likely timing and proceeds of sales of securities purchased during a specified period. In connection with damages/losses estimates, the methodology can be used to estimate market sale mitigation to purchase inflation measures, to estimate market losses, or holders through specified dates. It can also be used for other similar analyses and to derive estimates of shares held through certain defined dates, for example to determine the value effect of a stock price decrease that results from a particular announcement or event.

We describe the process as a methodology, not a model. That is, the approach we use, the steps in the analysis and the type of data are the same for each case, but since the specific model created for each analysis is driven by actual data, each model will differ. The description set forth below focuses on a purchaser analysis; the methodology can be used for a seller analysis as well.

Step 1: Float Calculation

The first step in creating a company-specific model is to estimate the "PIBC float," that is the number of shares that are available for purchase at any point in the class period. The PIBC float calculation takes into account the fact that there are generally long-term holders of a given security whose shares are not available for purchase during the class period, that is, owners who purchased before the class period and did not sell during the class period. These holders are typically excluded from the damage calculations.

In general, the PIBC float is derived from several components:

- **Shares Outstanding**. This information is usually obtained from the company's 10Q, 10K, or other SEC filings. For Adams Golf, shares outstanding during the class period were approximately 6.9 million shares sold in the Public Offering.
- **Institutional Long-Term Holds**, defined as shares owned by institutions before the class period and not sold during the class period. By examining institutional ownership data from various sources, PIBC estimates the number of shares that were owned by each institution at the beginning of the class period and the number of these shares that each institution sold during the class period. Using the FIFO assumption, it can then be estimated how many of each institution's shares were not available for purchase during the class period. For Adams Golf,

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the estimated institutional long-term holds were not estimated as Adams Golf was an IPO.

- Insider Long-Term Holds, defined as shares owned by insiders before the class period and not sold during the class period. PIBC researches the company's Forms 4, annual proxy reports, the complaint, and other available sources to estimate the shares owned by officers, directors, and others, that were not available for purchase during the class period. For Adams Golf, the estimated institutional long-term holds were not estimated as Adams Golf was an IPO.
- Individual Long-Term Holds, defined as shares owned by individuals before the class period and not sold during the class period. PIBC first estimates the number of shares that were owned by individuals at the beginning of the class period by subtracting from the total shares outstanding at the beginning of the class period the sum of institutional holdings at the beginning of the class period and insider holdings at the beginning of the class period. Then, based on PIBC's experience and such factors as type of stock, speed of turnover, and price and volume activity, the number of these shares owned by individuals before the start of the class period that were not sold during the class period is estimated. For Adams Golf, the estimated institutional long-term holds were not estimated as Adams Golf was an IPO.

The estimated PIBC float is the number of shares outstanding less the sum of the institutional, insider, and individual long-term holds. PIBC estimated that the Adams Golf PIBC float was 6.9 million shares.

Step 2: Model Subperiods

The class period daily trading data—closing prices and volumes—is then divided into a number of subperiods to allow for shares purchased in a given subperiod to be allocated to likely sale subperiods thereafter (or after the end of the class period), resulting in the development of what PIBC terms a “decline curve.” In order to obtain logical groupings of purchasers and to lessen the need for later adjustments in certain sale subperiods to reflect actual volumes, these groupings are made to achieve subperiods with roughly equal volumes; however, often new subperiods begin and end at significant price break points or at points where drop analyses are to be performed. PIBC attempts to create at least 10-15 subperiods as a minimum, up to as many as 30 or 40 subperiods for a very long class period, to ensure good operation of the curve/allocation methodology described below. For Adams Golf, the relatively short class period was divided into 18 subperiods after the IPO.

Volumes and weighted average prices are calculated for each subperiod. For the “hold-through” subperiod, which is the subperiod containing those shares purchased during the class period but not sold during the class period, a “terminal value” price is assigned. The

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terminal value is usually the actual price at or just after the end of the class period. It is assumed that those shares purchased during the class period but not sold during the class period are sold at the terminal value price. For Adams Golf, the terminal value price was \$4.02 per share. All subperiod trading data is then entered into the Market Simulation model.

Then, when appropriate, PIBC reduces all subperiod reported trading volumes by a certain percentage to account for possible double-reporting of customer stock purchases and sales by inclusion of certain intermediary trading data (note that in the case of a public offering subperiod, no downward volume adjustment is made for the offering). PIBC terms the resultant reduced volumes the "Adjusted Volume." In the case of Adams Golf which was traded on the NASDAQ, the reduction was 30%, that is, the adjusted volume in each subperiod was set at 70% of the reported volume.

In this analysis, Adams Golf's reported volume of 37.3 million shares was reduced to an adjusted volume of 28.18 million shares, which is the volume utilized in the damage estimates.

Again when appropriate, PIBC reduces each subperiod's volume a second time to account for intra-subperiod trading which by definition would produce breakeven results (again excepting a public-offering subperiod where no adjustment is made). For example, if it appears that 20% of the volume purchased in a subperiod would have been sold in that subperiod, then the maximum damaged volume is reduced by 20%. For the Adams Golf analysis, the adjusted volume was reduced by 20% for all subperiods except the IPO period.

Step 3: The Decline Curve

Next, a decline curve is developed. The decline curve represents PIBC's estimate of the rate at which those who purchased shares during the class period subsequently sold their shares. The rate of sale declines over time because in general (a) more purchasers sell sooner than hold longer, and (b) if shares did not sell off in such a fashion, too many shares would quickly accumulate such that the subsequent purchase volume could not be accommodated.

Although based to some degree on PIBC's experience with stock trading in general as well as continual research and communications with market participants, a key factor in the decline curve determination is the float turnover rate, that is the number or fraction of times the float turns over during the class period. For example, if the total adjusted volume during the class period is 90 million shares and the float is 25 million shares, then the float is said to have turned over 3.6 times during the class period. The velocity of this float turnover determines the shape, or steepness, of the decline curve. If the turnover is rapid,

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the curve will be steeper than if the turnover is slower. A dot.com IPO could be expected to have a far steeper curve than that of a railroad or utility stock, for example.

For Adams Golf, the class period adjusted volume was 28.18 million shares; thus, the 6.9 million share float turned over about four times during the class period. Therefore, PIBC's initial estimate was the decline curve set forth below:

Adams Golf Basic Decline Curve

<u>subperiod</u>	<u>% sold</u>	<u>subperiod</u>	<u>% sold</u>
2	23%	10	.8%
3	17%	11	.6%
4	13%	12	.4%
5	7%	13	.2%
6	4%	14	.1%
7	3%	15	.1%
8	2%	16	.1%
9	1%	17	.1%
10	.9%	18	.1%

The decline curve for certain model subperiods is then adjusted if necessary based on actual market conditions, as follows:

- The model detects and flags discrepancies of sale allocations. It tracks the allocations of purchased shares to subsequent selling subperiods to detect if more shares are being assigned for sale in any given subperiod than were actually traded. When such discrepancies are flagged, the decline curve is revised for the appropriate subperiod(s). For Adams Golf, revisions were required in subperiods where the sales produced by PIBC's model exceeded the actual sales. Percentages were reduced in those subperiods and increased in other subperiods where the model produced sales that were less than the actual sales, as indicated in the attached table.
- The decline curve is revised if it produces an amount of held-through shares—shares purchased during the class period but not sold during the class period—that is significantly different than the number of shares in the PIBC float.
- The intra-period trading discount is increased, meaning that the number of potential damaged/loss shares is lowered, for any period in which PIBC believes that there was an excessive amount of intra-period trading. This typically occurs in the several subperiods following a public offering, or in a one-day subperiod with excessive volume, for example. For Adams Golf, no adjustment was made.

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- The validity of the decline curve, with adjustments, is verified by the number of shares produced by the model as being held through the end of the Class Period equaling the float. In the case of an IPO, all shares from the offering are shown as being held through the end of the Class Period.

Step 5: Damage Estimates

PIBC then calculates, by appropriate methods and measures in each case, the damages and or losses incurred by purchasers who bought during the class period.

Section 11 Damages: estimates damages incurred by those who purchased shares during the class period and subsequently sold shares at a price lower than their purchase price. If a purchaser sold during the class period, then the actual purchase and sale prices are compared to see if a loss occurred; if a purchaser did not sell during the class period, then a sale is assumed to occur at the terminal value and the actual purchase price and the terminal value are compared to see if a loss occurred. For example, if the actual purchase price on a given date was \$50 and the actual sales price on a subsequent date was \$21, then a purchaser who bought and sold on those dates incurred \$29 of market losses; however, if the sale price was \$51, then no market losses were incurred. Losses calculated by this method are an estimate of the amount lost upon subsequent sale by class period purchasers. For Section 11 and Section 12 Estimated Damages, the average purchase price is limited by the offering price in the IPO.

For Adams Golf, the estimated Section 11 damages are estimated as \$84,090,000.

For Adams Golf, the estimated Section 12 Lehman Brothers damages are estimated as \$5,579,215.

Intermediate Adams Golf worksheet grids are attached, which show the intermediate stages of some of the model calculations as generated.

[illegible]

ADAMS GOLF, INC.
PRELIMINARY ANALYSIS
SUMMARY OF RESULTS
ESTIMATED SECTION 11 DAMAGES

(Period)	Ave Purchase Price	Reported Volume (000)	Adjusted Volume (000)	Est Damaged Vol (000)	Est Damaged Shrs (%)	Est Damages
IPO	16.00	6,900.0	6,900.0	3,310.6	48	\$32,763,052
07/10/98	16.00	7,437.4	5,206.2	2,117.9	41	20,321,212
07/13/98	16.00	1,473.8	1,031.7	448.8	44	2,557,026
07/14/98-07/16/98	16.00	1,744.2	1,220.9	684.9	56	4,131,322
07/17/98-07/20/98	16.00	1,229.9	860.9	688.7	80	3,263,702
07/21/98	14.94	1,031.5	722.1	577.6	80	2,362,547
07/12/98-07/23/98	14.24	1,315.2	920.6	736.5	80	3,588,920
07/24/98-07/27/98	12.20	805.3	563.7	451.0	80	1,622,707
07/28/98-07/29/98	9.94	1,302.6	911.8	729.5	80	1,386,555
07/30/98-08/04/98	9.77	1,456.8	1,019.8	815.8	80	1,978,283
08/05/98-08/10/98	9.68	1,472.3	1,030.6	824.5	80	2,647,297
08/11/98-08/20/98	9.37	1,413.0	989.1	791.3	80	3,102,579
08/21/98-08/27/98	7.09	1,314.8	920.4	736.3	80	1,581,409
08/28/98-09/08/98	6.21	1,226.1	858.3	686.6	80	1,229,661
09/09/98-09/18/98	4.90	1,475.8	1,033.1	826.4	80	547,687
09/19/98-09/28/98	4.55	778.8	545.2	365.3	67	159,868
09/29/98	4.00	1,976.9	1,383.8	0.0	0	0
09/30/98-10/07/98	4.39	1,521.3	1,064.9	607.0	57	222,162
10/08/98-10/22/98	4.80	1,428.6	1,000.0	800.0	80	624,012
Terminal Value	4.02					
Total		37,304.3	28,183.0	16,198.7		84,090,000

ADAMS GOLF, INC.
PRELIMINARY ANALYSIS
SUMMARY OF RESULTS
ESTIMATED SECTION 12 DAMAGES - LEHMAN

(Period)	Ave Purchase Price	Reported Volume (000)	Adjusted Volume (000)	Est Damaged Vol (000)	Est Damaged Shrs (%)	Est Damages
IPO *	16.00	1,175.0	1,175.0	563.8	48	\$5,579,215
07/10/98	16.00	7,437.4	5,206.2	0.0	0	0
07/13/98	16.00	1,473.8	1,031.7	0.0	0	0
07/14/98-07/16/98	16.00	1,744.2	1,220.9	0.0	0	0
07/17/98-07/20/98	16.00	1,229.9	860.9	0.0	0	0
07/21/98	14.94	1,031.5	722.1	0.0	0	0
07/12/98-07/23/98	14.24	1,315.2	920.6	0.0	0	0
07/24/98-07/27/98	12.20	805.3	563.7	0.0	0	0
07/28/98-07/29/98	9.94	1,302.6	911.8	0.0	0	0
07/30/98-08/04/98	9.77	1,456.8	1,019.8	0.0	0	0
08/05/98-08/10/98	9.68	1,472.3	1,030.6	0.0	0	0
08/11/98-08/20/98	9.37	1,413.0	989.1	0.0	0	0
08/21/98-08/27/98	7.09	1,314.8	920.4	0.0	0	0
08/28/98-09/03/98	6.21	1,226.1	858.3	0.0	0	0
09/09/98-09/18/98	4.90	1,475.8	1,033.1	0.0	0	0
09/19/98-09/28/98	4.55	778.8	545.2	0.0	0	0
09/29/98	4.00	1,976.9	1,383.8	0.0	0	0
09/30/98-10/07/98	4.39	1,521.3	1,064.9	0.0	0	0
10/08/98-10/22/98	4.80	1,428.6	1,000.0	0.0	0	0
Terminal Value	4.02					
Total		31,579.3	22,458.0	563.8		5,579,215

* Lehman Shares

CERTIFICATE OF SERVICE

I, Carmella P. Keener, hereby certify that on this 14th day of July, 2006, I caused the **EXPERT REPORT OF R. ALAN MILLER** to be electronically filed the with the Clerk of Court using CM/ECF, which will send notification of such filing to the following:

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UNITED STATES DISTRICT COURT
DISTRICT OF DELAWARE

IN RE ADAMS GOLF, INC.
SECURITIES LITIGATION

: CONSOLIDATED
: C.A. NO. 99-371 KAJ
:

CONFIDENTIAL-FILED UNDER SEAL

REBUTTAL EXPERT REPORT OF R. ALAN MILLER

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ADAMS GOLF SECURITIES LITIGATION

REBUTTAL EXPERT REPORT OF R. ALAN MILLER

I. INTRODUCTION

1. I have been asked by counsel for the plaintiffs in this matter to review the reports of defendants' experts and for any opinions I have in rebuttal. My background and qualifications, compensation, and information reviewed have been provided in my initial expert report dated July 12, 2006. In addition, I have reviewed the expert reports of Messrs. James, Sjoquist, Lynch, Grace and Necarsulmer. The reports which address the areas of my anticipated testimony are those of Messrs. James and Necarsulmer.

II. ANALYSIS AND OPINIONS—EXPERT REPORT OF CHRISTOPHER M. JAMES

2. To determine whether defendants have met their burden and established any negative loss causation, I reviewed the expert report of Christopher M. James. A review of Mr. James' resume indicates considerable academic background, but no background, experience, or qualifications in the fields of investment banking, investment research, brokerage or any other discipline related to actual, real world participation and valuation of securities in connection with investor transactions involving real money.

3. There can be no question that the gray marketing issue was material to investors or potential investors in Adams Golf. I have presented the basis for this opinion in my report previously submitted in this matter. Mr. James does not demonstrate that gray marketing was not material to the investment community.

4. Considering the importance attached to gray marketing by Adams Golf, and its obviously significant impact on margins and earnings, it is clear that the IPO offering price

would have been substantially lowered if this information had been properly disclosed in the prospectus.

5. In my opinion, Mr. James does not establish or show negative loss causation with respect to the gray marketing issue. He does not show why Adams' stock price declined at any particular times during the Class Period or thereafter and does not examine, or refute, repeated partial disclosures concerning gray marketing, which can be associated with and very likely caused stock price declines. Mr. James presents and defends the use of an "event study" methodology to perform his analysis, but in fact does not identify many relevant specific event dates and examine related stock price movements. Instead, he attempts to relate stale information (time-lagged market share growth for Orlimar, an Adams competitor) to a long-term Adams stock price decline, without identifying any specific release date for the Orlimar information, even though he claims an efficient market would suggest a one-day price response to new material information. In this examination the Orlimar market share data is lagged by two months and the Adams' stock price used is month-end. There is no reason to believe these dates would be related in time or in investors' consideration and Mr. James presents no such reason. So the conditions he claims are necessary for a valid event study—a clear, identifiable discrete one-time disclosure of new information and a clearly associated statistically significant stock price movement—are absent from his analysis. Equally vague and meaningless is Mr. James' use of a "regression" using monthly golf industry data for a time period which extends well past the Class Period, and well past the period of significant Adams stock price decline. To attempt to "explain" that decline, Mr. James also ignores the price action of Callaway Golf, Adams' only comparable stock as identified by defendant Lehman Brothers analyst in its detailed report of August 28, 1998. In fact, Mr. James uses as a comparative or "control"

index in his "analyses" the NASDAQ Index, which is dominated by high technology companies and which does not even contain the stock of Callaway which is traded on the New York Stock Exchange. See Exhibit A, which displays the stock prices of the various publicly traded golf equipment manufacturers, including the contrasting stock price movements of Callaway and Adams. See also Exhibit B, which presents data on several publicly traded golf stocks as well as associated events—news releases, articles, analyst reports, etc. Clearly the stocks of these companies do not move in tandem on a daily (or any other periodic) basis. Mr. James has not established that Adams Golf's stock price moved, consistently or at all, in response to any particular industry or other indicator. Further, Mr. James fails to establish that company-specific factors that moved Adams Golf stock price were other than gray marketing. See paragraph 22 hereafter.

6. In his paragraphs 6, and 25 through 30, Mr. James references the Adams Golf press release issued on June 9, 1998 to support a claim that the underwriters knew about the existence and risks of gray marketing at Adams and incorporated that information into the IPO price. He quotes the June 9 press release that:

The Bill of Discovery was filed in order to determine whether Costco's claims that they had properly acquired Adams' Tight Lies® fairway woods for resale were accurate. Adams Golf became concerned when it learned that Costco was selling their Tight Lies® fairway woods because Costco is not an authorized distributor.

Mr. James also cites Callaway's 1997 10K discussion of gray marketing as well as a May 18, 1998 press release by "Fortune Brands, another golf industry peer" to support his claim of underwriter knowledge of gray marketing and therefore its incorporation into the IPO price. What he omits is any indication of pre-IPO knowledge on the part of prospective buyers of

Adams stock of the impact and risk of gray marketing at Adams. That is, Mr. James omits from his quote the last part of the Adams June 9, 1998 press release which states: “‘We are committed to our program of partnership with our retail accounts,’ stated Barney Adams, Chief Executive Officer of Adams Golf. ‘We are prepared to take every legal action required to ensure that our valuable relationship with our retailers is maintained and remains fully intact,’ Adams added.” Thus, accompanying Adams’ statement of “concern” was the statement that Adams Golf was attempting to determine whether it should be concerned, and the statement that Adams was committed to maintaining the integrity of its marketing strategy. This did not constitute disclosure of what plaintiffs allege was omitted regarding the material risk of gray marketing, the fact that it was already occurring, and its impact on Adams. Mr. James concedes that stock prices are based on the total mix of information in the market at any time regarding a security. A critically important piece of information for an IPO company is the prospectus, as the investment community understands that it is required to be complete and not misleading, particularly with respect to known risks. The undisclosed material risk and impact of gray marketing to Adams continued with the silence of the prospectus when Adams knew gray marketing was already a fact.

7. In his paragraph 30, Mr. James says:

Moreover, had the underwriters *not* known about the gray marketing or failed to incorporate this information into the offer price, thereby arguably overpricing the offering, the market would have responded to the June 9, 1998 press release as shares began trading in the secondary market on July 10, 1998. If a loss had occurred on the first day of trading, it could potentially be attributed to the curative disclosure on June 9 and result in damages. However, Adams Golf’s stock price rose \$2.375 from \$16.00 to close at \$18.375 on the first day of trading. Since the stock price did not decline on July 10, 1998, I conclude that the information provided by the first disclosure of gray marketing

was either already embedded in the offer price or otherwise not material. Thus no damages resulted from the alleged omissions or misrepresentations of the gray marketing from the Prospectus.

This reasoning and conclusion is faulty, misleading as to how the markets operate, and incorrect. Mr. James speaks as though the June 9, 1998 press release constituted complete disclosure of the information plaintiffs allege was omitted from the prospectus, and that no other information regarding Adams existed before the IPO. When the June 9, 1998 press release was published, there was no public market for Adams stock and no reason for market participants to pay much attention to the release. Also, as discussed heretofore, the complete contents of the press release would have been considered by market participants, as would all other relevant information regarding Adams, including, far more important than the press release, the prospectus. The absence of a risk factor regarding gray marketing in the prospectus was much closer in time to the IPO and would have reached a much wider audience of prospective investors more directly than the press release. Indeed, the absence of any reference to Costco or gray marketing in the prospectus a month following the June 9 press release would be interpreted as meaning that any potential problem that may have existed in June had been resolved by July. To suggest that the fact that the Adams stock price increased the first day of trading means that the partial contents of the press release of one month earlier (when there was no public market for Adams' stock) cited by Mr. James was already in the price (and implicitly "curative" of plaintiffs alleged omissions) or "otherwise not material" is completely incorrect, without basis, and makes no sense. In fact, the price increased about 16% on the first trading day—about the amount underwriters usually try to achieve for IPOs.

8. Mr. James cites in his footnote 13 to a letter to the SEC from Company attorney Joseph Hoffman as evidence of immateriality of the gray market issue. That is, the Hoffman

letter claimed in substance that Company counsel and underwriters' counsel had reviewed the publicity leading up to and after the filing of the registration statement and both believed that Mr. Adams' public statements (in pre-IPO statements) squared with and were adequately addressed in the prospectus. But that prospectus contained no risk factor whatsoever regarding gray marketing. The last page of the draft Hoffman letter (apparently not sent to the SEC), which describes the bill of discovery matter against Costco, concluded: "The Company does not believe that this proceeding is material" (not that gray marketing was immaterial). The absence from the prospectus of a disclosure concerning gray marketing risk and impact confirmed to potential investors the absence of a material problem. As noted herein, however, this problem was highly material.

9. In his paragraphs 6 c and d, Mr. James cites three instances in which gray marketing involving Adams was to some extent publicly discussed during the Class Period:

The first was a *Golf Pro* article published on Saturday, August 1, 1998. On the Monday following the *Golf Pro* article, there was no statistically significant price reaction.

There is no reason to believe that the *Golf Pro* magazine actually reached the market on August

1. In fact, inquiries have shown, and the text itself strongly suggests, that it may well have been distributed in the middle of July. This is consistent with the practice at many magazines in which cover dates are considerably later than the actual distribution dates. It also very likely arrived at recipients by mail over at least a several day or longer period. If the information in *Golf Pro* in fact reached the market approximately in the middle of July, it might very well explain the significant decline in Adams Golf's stock price which occurred at that time and thereafter. Also, the entire contents of the article would be absorbed by the

market. The gray market discussion represented only the 35th and 36th paragraphs of 37 paragraphs in the article.

The next discussion Mr. James cites is a Lehman Brothers analyst report dated August 28, 1998, in which the Lehman Brothers analyst expressed a concern about Tight Lies® appearing in Costco wholesale stores with increasing regularity. What is missing again, from Mr. James's report, is the context; this item appeared on page 27 of a 28-page analyst report, as virtually the only cautionary note in the entire report. In fact, the vast bulk of the Lehman report, which contained a "buy" recommendation, was overwhelmingly positive with respect to Adams Golf and its prospects, therefore diluting the impact of this gray market "disclosure". Notwithstanding that positive content, Adams' stock price declined 5% on the 28th and 16% on the 31st, the next trading day.

Mr. James concludes (paragraph 6c):

Post-IPO disclosures regarding the gray market did not result in statistically significant price movement and therefore this alleged omission was previously known to the market or not material . . . The lack of a significant price reaction on these dates (August 1 and 28, 1998) together with the announcement of gray marketing before the IPO imply that there is no evidence that a discussion of gray marketing risk in the Prospectus would have had an impact in the pricing of Adams Golf's IPO. In my opinion there are no damages associated with these alleged misrepresentations and omissions.

Mr. James is assuming (or opining?) that the *Golf Pro* article and the August 28 analyst report represent full, clear, timely, and undiluted "disclosure" of what plaintiffs allege was omitted from the prospectus—disclosure of the risk, existence, extent and impact of gray marketing. Clearly they do not, as they are partial, "seeping" comments by non-Company sources which are in no way equivalent to a proper company disclosure in an SEC-filed

prospectus. Nonetheless, the Adams stock price declined throughout the second half of July when *Golf Pro* was likely out, and as Costco sales of Tight Lies® peaked, and especially on August 28th and 31st.

10. The final "disclosure" mentioned by Mr. James was the October 22, 1998 press release which discussed gray marketing as having a significant impact on expected margins in the short term at that time.

Mr. James writes in his paragraph 6d:

The only disclosure related to the gray market that is associated with a statistically significant negative decline was the October 22, 1998 press release, which was made after the close of trading. The price decline on October 23, 1998 was statistically significant, but was due to other information released. In the October 22, 1998 press release, Adams Golf announced operating results for the third quarter of 1998. As part of its press release Adams Golf announced that it expected fourth quarter sales to be affected by weakness in the golf equipment market; it anticipated sales to be impacted by "the recent gray market distribution" of its products; and it anticipated net income for the fourth quarter to be at or slightly above a break even level. In addition, analysts revised their fourth quarter consensus earnings estimates on October 23, 1998 from \$0.11 per share to \$0.05 per share. On October 23, 1998 the price of Adams Golf's stock price fell 16.2% or \$0.75. Given that (a) the market was aware of the gray market problem before October 22, 1998; (b) the announcement contained new information regarding market conditions and future performance; and (c) analysts revised their consensus earnings estimates, the price decline on October 23, 1998 was not in my opinion due to a disclosure of the risk of gray market sales in Adams Golf's products.

Although it appears that the market, or at least certain participants, was likely aware of a gray market problem before October 22, 1998, this appears to have been the first Company press release admitting the existence of a major impact of gray marketing. Mr. James attributing the related stock price decline to other factors (market factors, future performance,

revisions in analysts' earnings estimates) however ignores that future performance and earnings are substantially affected by gray marketing. See the contents of Barney Adams' October memo (Ex. 80) in which he complains of a negative impact on fourth quarter sales of 20-25% due to Costco. And in this instance Mr. James suggests that other factors in a multi-factor communication do affect the stock price, even though he did not consider the effect of other factors in opining that, since the 35th and 36th paragraphs of 37 (*Golf Pro*) or the 27th page of 28 (Lehman Brothers August 28, 1998 analyst report) did not (according to James) cause a stock price move, that information was therefore already known or not material. This inconsistent approach demonstrates the complete lack of basis for Mr. James' opinions.

Mr. James attempts to minimize the content of the October 22, 1998 announcement with respect to gray marketing by only reporting a portion of the quote in his report. An examination of the entire quote shows the obvious significance of the gray marketing disclosure:

"We are pleased with our third quarter results, especially considering the general softening we have seen in the golf equipment market," stated Barney Adams, Chairman, CEO and President of Adams Golf.

Commenting on the Company's outlook for the fourth quarter, Mr. Adams stated, "At this time, we expect our fourth quarter sales will be affected by continuing weakness in the golf equipment market. In addition, we anticipate our sales will be further impacted by the recent gray market distribution of our products to a membership warehouse club. While we are working diligently to identify and stop the unauthorized distribution of our products to this retailer, we anticipate this process will take at least through the end of the year. As a result of these market conditions, we anticipate that our net income for the fourth quarter will be at or slightly above a break even level. We remain optimistic, however, about our ability to increase our sales and earnings in 1999 through the introduction of new products and the continued expansion of our marketing efforts both domestically and internationally." [emphasis added]

Further Mr. Adams stated, "In response to current market conditions, we have recently rolled out a new marketing campaign offering a high quality golf bag free to consumers who purchase any two Tight Lies® fairway woods. Based on preliminary reaction from our retailers, we believe this promotion will help stimulate sales and reduce the gray market distribution as the free bag is available only to customers who purchase Tight Lies® clubs through authorized Adams Golf retailers. In addition, we will begin doing a new Tight Lies® infomercial within the next week which focuses on the expanded line of Tight Lies® products and highlights the benefits of the Tight Lies® fairway wood over clubs currently offered by our competitors. Meanwhile, we are continuing our research and development efforts and the new driver remains on track for introduction in the first quarter of the new year," concluded Barney Adams. [emphasis added]

Note that on October 23, 1998 Adams stock declined over 16%.

Mr. James concludes this section by stating that none of the October 23, 1998 decline is attributable to the disclosure of the gray market because that information was already reflected in the pre-disclosure price. However, he has not demonstrated that, except to claim, without support, that the June 9 press release constituted such "disclosure" and that gray marketing was known to be an industry problem as it was referenced in a Callaway 10-K and a Fortune Brands press release. However, these "disclosures" are not clear, unambiguous statements of the risk, existence and impact of gray marketing on Adams, and were nullified by the silence of the prospectus, as explained above. In addition, the October 22 release provided new information regarding a) the expected impact of the gray market on fourth quarter results, and b) the need to combat gray marketing by instituting a significant new marketing campaign (free golf bags).

11. In his paragraph 6g, Mr. James concludes "Thus there is no evidence of a curative disclosure pertaining to the allegations in the Complaint leading to significant decline

in Adams Golf's stock price during the class period". However, he does not attempt to evaluate the effect of the extensive purchases and sales of Adams clubs by Costco and the widespread appearance of Adams clubs in Costco along with the likely effect on Adams stock price. The Nations Bank analyst noted in his August 4, 1998 report (page 2):

In addition, Callaway shares were often volatile in response to concerns such as "I saw a Big Bertha in Costco" or "some retailer offered a Big Bertha at \$10 below an earlier price" that proved to be irrelevant. We expect Adams stock to also be volatile.

Nor does Mr. James consider the knowledge of Adams distribution and sales people; Costco purchasing, distribution and sales personnel or affiliates; and readers of *Golf Pro* magazine and their customers and contacts—which very likely constituted some significant portion of the golfing community.

12. In his description of methodology, Mr. James then says that he will analyze the factors that were affecting Adams Golf's stock price; and examine directly the public announcements Adams Golf made about the unauthorized distribution of its golf clubs. By so limiting his examination, he completely excludes the highly likely possibility that information about gray marketing of Adams' clubs reached the marketplace from sources other than Adams Golf's public announcements, such as from rumors, employee "leaks", and information possessed or disseminated by participants in the gray marketing process itself.

13. In his section V, Mr. James concludes that there were no damages from the omission of the gray market information from the prospectus because the stock price did not decline on July 10, 1998, and in an efficient market, all publicly available information would be reflected in the stock price. Therefore, he says, if there was information in the market about gray marketing (from the June 9, 1998 press release discussed heretofore), it would have

caused the price to decline on July 10. This reflects a strange, incorrect view of how the market actually works to price IPOs and trade the securities in the after market. The concept that market participants would "sit on" information released into a market in which the stock was not trading and then wait for an IPO to occur, then sell or short the stock based on information not disclosed in a prospectus, and ignore all other information, is simply not realistic. The most significant piece of information affecting that market would be the registration statement and prospectus, which market participants believe is required to contain all material information relevant to the issuer. The fact that there was no risk factor for gray marketing, nor a discussion of the actual extent and impact of gray marketing, would inform the market that there was not such a risk at that time, even if conceivably there might have been one at the time of the June 9 press release. Accordingly, it is unreasonable to assume that after the IPO prospectus became available the stock price would decline before any new negative information (such as regarding gray marketing) became available to the market.

14. Beginning in his paragraph 51, Mr. James then describes the "event study" methodology he purportedly used to deconstruct stock price movements and identify their causes. He reports that he found the NASDAQ Index explained 17.6% of Adams Golf's daily stock price returns and that a "modified Bloomberg Golf Index" explained 12.9% of the daily stock price movements. In fact, the terminology is incorrect; neither index explains these movements, they simply correlate or are associated to that degree with them by James's examination. Most statistics textbooks contain a caution to the effect that "association is not causation". In regression analysis, the data being studied is often labeled the "dependent variable" and the data regressed against is the "independent variable". This is a convention

but implies nothing about the actual causal relationship which may or may not exist between the data.

Further, the fact that Adams was an IPO causes a further problem for Mr. James's use of the term "explain". That is, in a properly conducted regression analysis, the relationship between a dependent variable and an independent variable is established by studying their relative movements during a "base period", often the one year period prior to the study period, which is usually a period in which the subject stock price is arguably unaffected by fraud. The resulting formula of the relationship between the variables is then applied to the study period and the predicted dependent variable is generated. The actual dependent variable (stock price) is then compared with the predicted and the difference is termed a "residual". The size of the residual is measured for statistical significance. Since there was (by definition in an IPO) no unaffected period of time for Adams Golf's stock to have traded prior to the IPO and prior to the class period, no such base period examination could occur. Thus, Mr. James's regression analysis/event study is only a measure of contemporaneous association or correlation, not a measurement of prediction, deviation therefrom and "explanation".

The common sense of this can be seen in that the NASDAQ Index is dominated by high technology companies and the Golf Index is assumedly comprised of companies in the golf industry. The fact that the NASDAQ Index correlates more closely to Adams Golf stock price than a golf index does not make common sense and is simply a statistical result of data correlation during a particular short time period. Note that Adams used the S&P Small Cap Index and peer group comparables in its proxy statements as the most comparable data, not the NASDAQ Index.

Mr. James says in footnote 20 "I examined the days where the residual stock price returns were statistically significant at the 95% level. A 95% confidence interval is the standard level used in event studies". First, the 95% level is often used; the 90% level is also often used. There is no particularly compelling reason why one is significantly more meaningful than the other in the context of stock price changes. An examination of Mr. James' exhibits shows that on many days, price movements in the study period came very close to reaching his statistically significant threshold line, but appeared to be unexamined by Mr. James. Second, it must be remembered that these confidence levels relate to a model which, in this case, correlates or associates with (not causes) only 17.6%, at best, of Adams Golf's movements. The meaning of this is that one is, say, 95% confident of the non-random statistical significance of an event measured against a model that is only 17.6% "explanatory" in the first place; 82.4% of the stock price movement remains unexplained by the chosen index, regardless of how confident one is. Third, the "total mix of information" phrase is meaningful here, as, for example in the August 1998 Lehman Brothers report, which recommended the purchase of the stock, much positive commentary is presented along with the gray marketing disclosure; it is the total amount of information in that report that would affect the stock price, not simply one sentence out of many, and although one would expect a strong positive purchase recommendation by the lead analyst and underwriter to raise a stock price, the price declined substantially after this report. Finally, the announcements or events that are examined in event studies are typically those shown on a printout and/or which are obtainable from electronic data retrieval services often years after the "events" being studied occurred. What is often not shown on such event studies is information from all possible sources that may have reached the market, especially oral information transmitted among members of a

particular community such as golfers, brokerage customers, retailers, gray market participants, etc. And the dates and times of the content of that information reaching the market may well not be those shown on the face of a later printout as can be seen in the *Golf Pro* magazine example. "Event windows", or the time period over which events occur and stock prices are measured, can therefore be of different lengths than one day, and very often are. This is especially true when the "event" occurs in multiple places at multiple times, such as reading or discussing *Golf Pro* magazine, spotting Adams clubs at Costco, etc. These shortcomings pervade Mr. James's analysis and render its results meaningless.

If the 90% confidence level were used as the threshold, or if a two-or-more-day event window were used, then a number of additional Adams Golf stock price declines during the Class Period could well become statistically significant even using such a nonintuitive, questionable index as the NASDAQ. It is particularly appropriate for event windows to consist of more than one day where the partial disclosure occurs through such means as rumor, magazine distribution occurring over several days, or "anecdotal" observations (such as market participants observing Tight Lies® in Costco). Longer event windows are also appropriate when the impact of the information on the company is complex.¹

15. Mr. James concludes, based on his "event study" methodology (which only studied certain selected "events") that no damages resulted from the omissions regarding gray marketing. Of course, he does not address whether damages could be observed based on any

¹ See "Event Studies And The Importance Of Longer-Term Measures In Assessing the Performance Of Complex Events" by Jeffrey S. Harrison of the Robins School of Business, University of Richmond; Derek Oler of the Kelley School of Business, Indiana University; and Matthew R. Allen of the School of Industrial and Labor Relations, Cornell University; dated February 11, 2005, which summarizes, on page 5: "Put another way, the full ramifications of a complex event may take longer to be compounded into stock prices because market participants may take longer to process complex information."

other methodology, including a fundamental analysis that the stock price in the offering would be lower if the risk, extent and impact of gray marketing were disclosed and considered at that time in evaluating Adams Golf. That is, such a factor would cause projected sales, margins, and earnings to be lowered and should therefore result in a lower share price in the offering.

16. In his Section VIII, Mr. James attempts to attribute the decline in Adams Golf stock price to "other factors" such as "problems confronting the industry and general weakness in the market that impacted the results of several of Adams Golf's competitors". He then cites seven analyst reports and a newspaper article (from Knight-Ridder Tribune Business News: The Sun News, Myrtle Beach, SC). But while earlier in his report he said such news items had to have a measurable, statistically significant effect on the subject company stock price to cause damages, in this section he has abandoned that requirement, yet conclusorily states they constitute causation. He does not cite the August 4, 1998 Nations Bank analyst report which specifically likens Adams' stock price volatility to that of Callaway's stock price reaction to gray marketing after its IPO.

17. In his paragraph 67, Mr. James discusses having performed an analysis regressing Adams Golf's stock price on the industry stock index on a monthly basis over the original longer proposed class period and "found that it was statistically significant and explained 38.9% of the stock price decline". Despite his attempt to explain why a regression using monthly data points is useful, it is clear that this analysis is meaningless, as the great bulk of the decline in Adams stock price occurred within several weeks after the IPO, not stretching out over a period of more than a year. In fact, such an analysis using scant data stretched over an irrelevant time period would provide a misleading result. Nonetheless, the analysis, according to James, "explained" only 38.9% of the stock price decline. What

"explained" the other 61%? Again, association does not constitute causation. That using monthly data points for a stock price-reaction analysis is wrong, meaningless and misleading can be seen by considering two hypothetical stocks which both start a month at \$10 and end at \$5. The first declines from \$10 to \$5 on day one, the second stays at \$10 and declines to \$5 on day 28. Clearly they were not affected by the same pricing factors in a market which typically reacts to news in one day, as Mr. James says Adams does, or even in several days.

18. In his paragraph 68, Mr. James says:

Although an industry index was ultimately not used in my event study model of daily stock price returns, Adams Golf's stock price was still influenced by industry factors.

He segues into a discussion of Orlimar, an Adams competitor, and product market share. The quote shown here, however, certainly undermines the validity of his "event study" regression comparison with the NASDAQ index.

19. Mr. James's thesis in his paragraph 69 is that as Orlimar's market share grew, Adams' market share declined and that this explains a significant portion of the decline in Adams Golf's share price. Although Mr. James juxtaposes the data in such a way to appear facially attractive, any analysis that goes beyond this surface level shows this association to be meaningless at best.

A. His thesis presumes (but does not state the presumption) that there is a fixed number of golf clubs that will be sold as between Orlimar and Adams together, and that therefore the market share of the two companies is a zero sum proposition. In fact, the Lehman Brothers analyst report referenced earlier identifies the only true competitor to Adams Golf as Callaway Golf. There appears to be ample purchasing capacity in the golf club market to allow for more than one successful company. More important, Adams Golf's share price

would be determined as the present value of its expected future earnings/cash flows, and at the time that Adams' share price was declining rapidly shortly after the IPO, there was no disappointing financial information in the market about Adams. Even if Orlimar's club sales were growing faster than Adams' at that time, Adams was still being favorably commented upon by analysts. When future financial performance was announced to be disappointing on October 22, it was due at least significantly to the impact of gray marketing.

B. Mr. James lags the market share data by one and two months (to allow for market participants to learn of it) to compare it to Adams' share price. He reports no basis on which to believe that the market share data was available to the public a) at any time, b) if so, when, or c) at a lag of one to two months or any other period. One cannot determine its statistical significance, either, without being able to identify a disclosure date.

C. Furthermore, the availability and competitiveness of the Orlimar club was known prior to the Adams IPO. According to Mr. James's thesis, the information would therefore already be reflected in Adams' stock price, and would not cause further decline.

D. The use of monthly stock price data to analyze causation in the sense of price declines is novel and without basis, and because of the stock price chart of Adams showing the significant decline occurring within a short period after the IPO, is meaningless in this matter as well.

E. Although Mr. James presents the data on a graph which has two different scales presenting the stock price data and the market share data in such a fashion to make them appear related, there is no apparent relationship between them, without substantial financial analysis which is not presented by Mr. James. The effect may appear attractive from defendants' standpoint but is misleading and meaningless.

F. It appears that Orlimar sales increased at least to some degree because some of Adams authorized retailers were attracted by Orlimar's higher margins as Adams' margins contracted due to gray marketing.

G. The same or similar correlations could be shown between other data which happen to occur at approximately that time. It would not surprise me if the sales of baseball equipment also correlated strongly with Adams' stock price decline, given their seasonality. Sales of swimwear might well do the same. Each is as relevant and "comparable" as Mr. James's data.

20. In his paragraph 70, Mr. James says that "39% of Adams Golf's price decline was attributable to the problem in the industry and at least 60% of the stock price decline was related to Adams Golf's loss of market share". He observes these figures are not additive. But his analyses are extremely flawed and inconsistent with his own professed methodology.

21. In his paragraph 71, Mr. James says:

Factors other than Plaintiffs' allegations—general industry decline and loss of market share—contributed to most of the decline in Adams Golf's stock price. These findings reinforce my conclusion that no losses can be attributed to the alleged omissions of gray marketing from the Prospectus.

And in paragraph 72:

In my opinion, there are no damages from the offering attributable to Plaintiffs' allegations associated with the gray marketing and sales practice risks because there are no material price declines that can be causally linked to these allegations.

However, there are no material price declines causally linked by Mr. James to causes other than gray marketing, including his two selections—industry factors and market share. Mr. James has not demonstrated negative loss causation.

22. In fact, information concerning gray marketing which existed in the marketplace and was available to various parties included the following.

A. Costco national purchase orders, indicating Adams authorized dealers' purchases of Adams clubs at the behest of Costco, which were issued for the following quantities of clubs as follows.

<u>Date of P.O.</u>	<u># of Clubs</u>	<u>Adams Stock Price Decline</u>
7/21 & 22/98	3,111	27%
7/29/98	500	13%
8/19/98	2,918	14%
9/10/98	250	21%

The stock price decline is measured from two days before the purchase order dates to two days after to allow for gradual leakage of the information. At a minimum, the people who would have known about this information would have been Costco personnel and/or affiliates and the various Adams distributors whom Costco directed to purchase the clubs. It would be very surprising if there were not some significant overlap between these various parties and investors in Adams Golf stock, as it is common practice with a niche company such as Adams Golf, for its stockholders to be people with an interest in such a market or company, such as avid golfers, distributors, retailers, suppliers, and others with a likely knowledge of the company and the market. Accordingly, knowledge among Adams authorized dealers that widespread gray marketing was occurring may have represented important leakage to the market for Adams' stock.

B. The knowledge of gray marketing possessed by the sales and marketing personnel at Adams who were involved in dealing with the gray market issues.

C. The significant sales of Adams clubs at Costco, as discussed in the Ochoa report. In the four week period beginning immediately prior to the IPO, Costco sales of Tight Lies® reached their highest level ever.

D. A Callaway release dated July 23, 1998 mentioned that most of its major competitors were discounting their clubs.

E. The *Golf Pro* article, which may have been available beginning approximately in the middle of July and discussed gray market concerns. If, as often occurs with magazines, this arrived at subscribers and recipients over a period of days to weeks, it corresponds closely in time with the Adams stock price decline. Adams' stock price declined substantially during mid and late July.

F. A Lehman Brothers memo dated July 29, 1998 discussing expected investor questions indicates market participants' concern about this issue.

G. The Lehman Brothers August 28, 1998 analyst report referenced information (including gray marketing) obtained from a pro shop survey extending back several months.

H. Trading records show that Lehman and its clients were trading Adams stock throughout the Class Period; Lehman's knowledge can be inferred to have had at least some effect on this trading.

I. Testimony of industry personnel indicates a knowledge of the existence of gray marketing.

J. The Nations Bank analyst report of August 4 attributes stock price volatility to gray marketing.

Mr. James has failed to analyze properly movements during these critical periods when information regarding gray marketing was reaching market participants. He failed to establish that stock price movements set forth above were not caused by gray marketing partial disclosures.

III. REPORT OF EDWARD NECARSULMER, III

23. In his report, Mr. Necarsulmer outlines the responsibilities of an underwriter to conduct a reasonable and adequate due diligence investigation in connection with a public offering of securities—however, he does so in a very general way. That is, he notes that an underwriter must obtain information, conduct meetings, review drafts, interview company personnel, etc. in the conduct of its work. He opines that the underwriters in Adams Golf did follow the general steps and procedures he identifies and that therefore their due diligence investigation was reasonable and adequate. However, he provides no detail nor identifies any specific information about Adams Golf's IPO which correlates with the categories of information he says need to be investigated, nor how that information was then disclosed in the Prospectus. No specific fact or set of facts addressing the primary issues complained of in this matter is presented. Nowhere does Mr. Necarsulmer discuss the critically important need for an underwriter to obtain independent verification of the information presented by the issuer. There is no reference to any such investigation, analysis, or meaningful discussions with major distributors, Costco, outside experts, nor any review of Adams' correspondence concerning gray marketing. There is no evidence presented on which the underwriters relied to conclude that the existence, risk or impact of gray marketing was immaterial.

24. In fact, it appears that at some point during the Prospectus drafting process, underwriter personnel did become aware that clubs were appearing (or may have been) in

Costco, as one underwriter employee visited a local Costco to investigate. Therefore, Necarsulmer's conclusory opinions, unsupported by any specific factual description, remain particularly meaningless as either a) having asserted that they followed the correct procedures, the underwriters failed to discover the importance of material information which was omitted from the prospectus, or b) regardless of whether the correct procedures were followed, they did discover such information and failed to ensure that it was published in the Prospectus.

25. My understanding is that if a prospectus is found to contain material omissions and/or misrepresentations, the underwriters, in order to escape liability, must demonstrate at a minimum that they performed a reasonable, adequate due diligence investigation and thereafter had reasonable grounds to believe, and did believe, that the prospectus was not misleading. In my opinion, the expert report of Mr. Necarsulmer does not meet the underwriters' burden to demonstrate that the investigation and/or resulting disclosures were reasonable and adequate.

26. The following exhibits are attached hereto:

- | | |
|-----------|---|
| Exhibit A | Stock Prices of Adams Golf Inc. vs. Comparables
7/9/98 to 12/31/99 |
| Exhibit B | Data on publicly traded golf stocks and associated news
releases, articles and analyst reports |

7/27/06
Date

R. Alan Miller
R. Alan Miller, President
Philadelphia Investment Banking Company

EXHIBIT A

**Adams Golf Inc. vs.
Comparables
7/9/98 to 12/31/99**

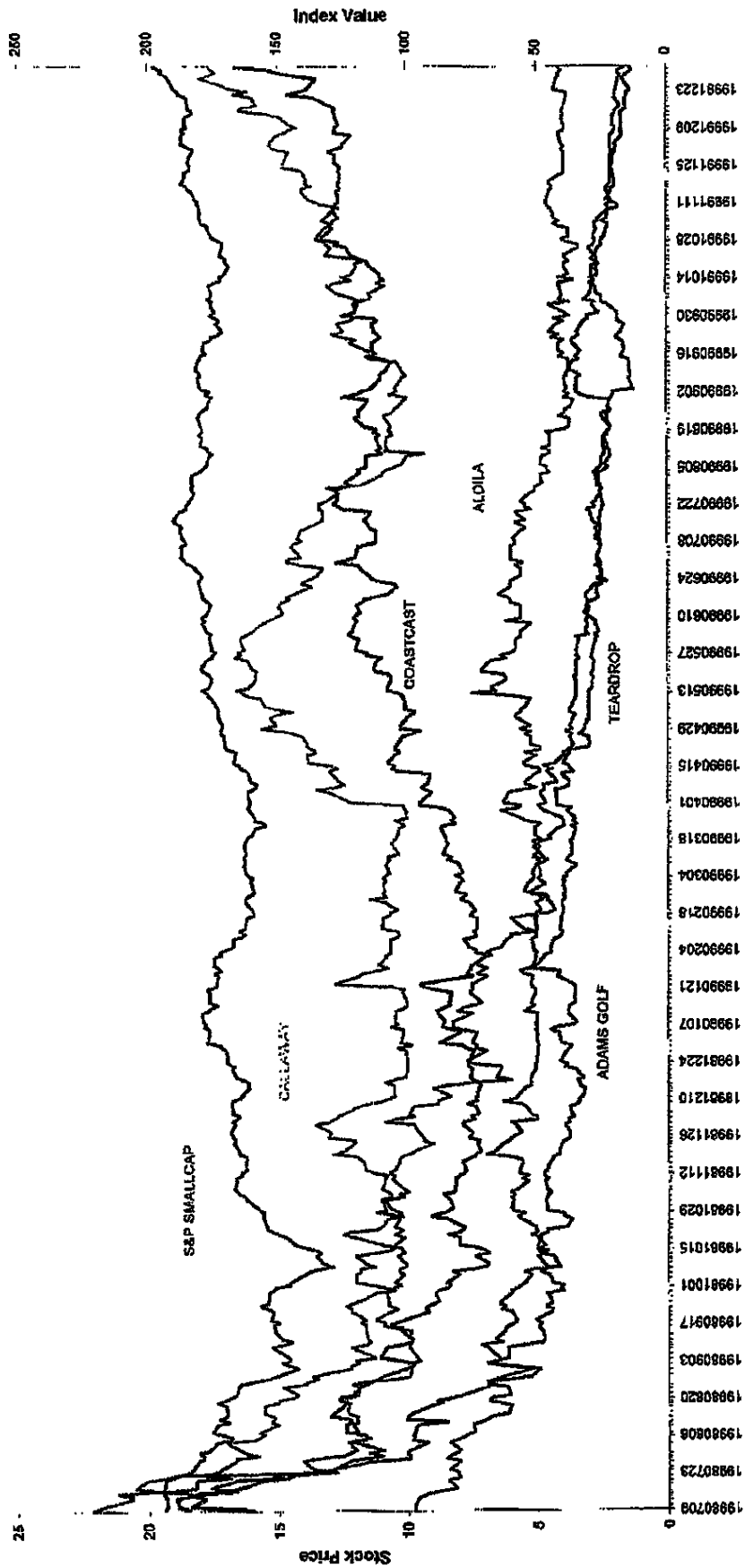


EXHIBIT A

ADGOWS1.XLC

Adams Golf Inc. vs.
Comparables
7/9/98 to 12/31/99

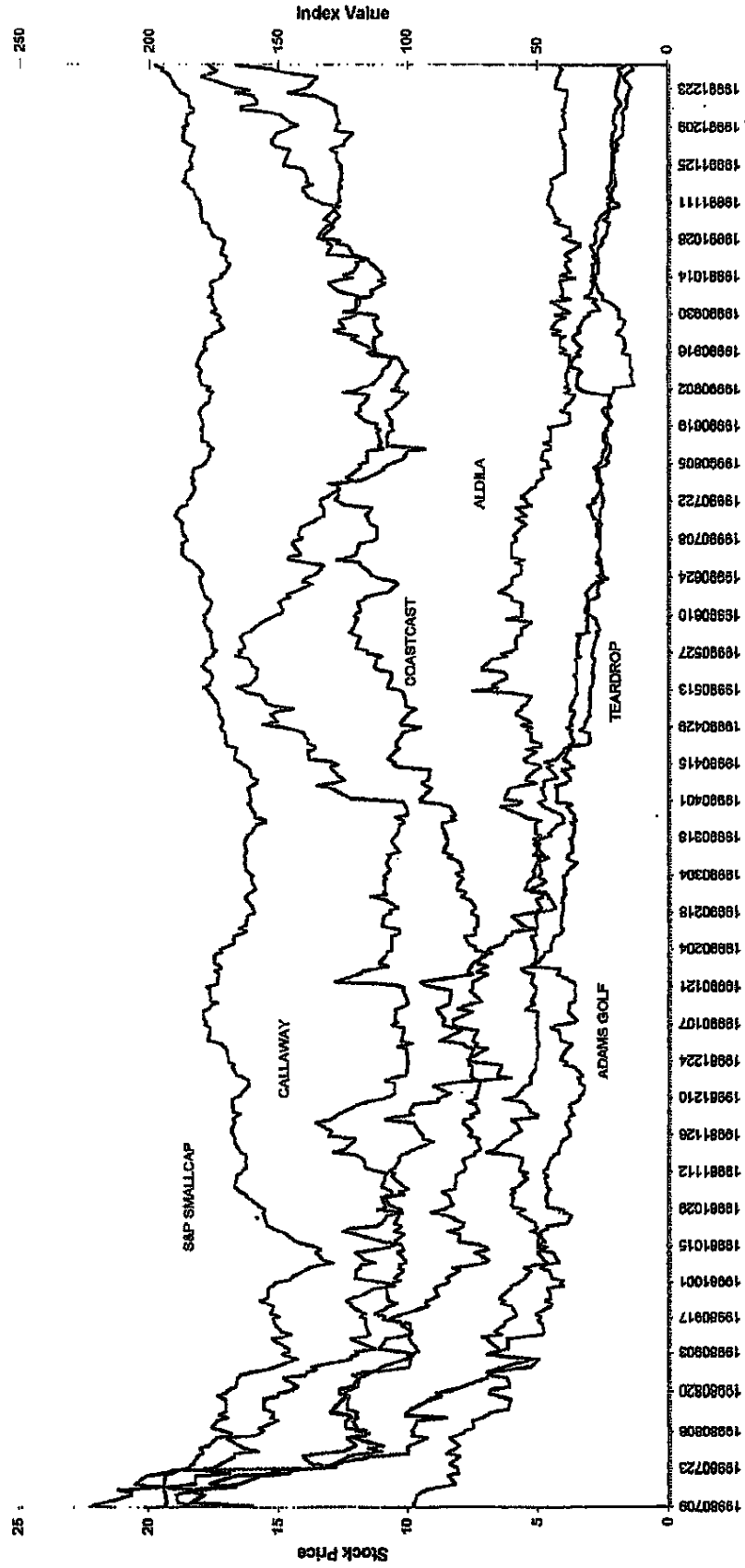


EXHIBIT A**ADAMS GOLF INC.**

DATE	ADGO	S&P SML CAP	CALLOW	TEAR- DROP	ALDILA	COAST- CAST
19980709	16	193.66	18.563	9.75	22.125	18.5
19980710	18.375	192.97	18.313	9.75	21.75	18.875
19980713	17.875	193.39	17.813	9.625	20.625	18.938
19980714	18.25	193.48	18	9.5	20.625	18.563
19980715	18.188	194.27	18.375	9.25	21.188	17.938
19980716	16.625	194.44	19.688	8.688	19.125	17.188
19980717	17.625	193.99	20.5	8.125	18.188	16.5
19980720	16.688	193.35	20.063	8.438	18.188	15.625
19980721	14.938	191	19.313	8	16.875	14.625
19980722	15.25	188.24	19	8.063	18.188	14.375
19980723	13.313	184.43	12.75	8.063	17.438	13
19980724	12.875	183.18	13.688	8.375	17.25	12.875
19980727	11.438	181.02	14.063	8	16.688	12.25
19980728	9.938	179.11	13.438	8.5	16.688	11.625
19980729	9.938	179.19	12.5	8.375	15.75	11
19980730	10.031	180.33	12.25	8.125	16.313	11.5
19980731	9.938	176.79	12	8	16.5	10.938
19980803	9.25	173.96	12.313	8.375	17.016	12.125
19980804	9.813	168.63	12	8.125	15.938	11.625
19980805	9.75	168.01	11.5	7.875	15.75	11.625
19980806	9.813	171.79	12	7.75	15.563	11.625
19980807	9.75	175.83	11.938	7.438	15.75	12.375
19980810	9.625	173.54	12.125	7.5	15	12.375
19980811	8.5	169.3	11.938	7.125	15.281	12.188
19980812	10.063	173.15	12	6.938	15.188	12.25
19980813	10	170.48	11.938	6.75	15.188	13
19980814	9.875	170	12.313	6.125	15.563	12.875
19980817	9.125	170.56	12.313	6.031	15.563	12.5
19980818	8.688	173.57	12.25	6.5	15	12.375
19980819	8.875	170.92	12.5	6.875	15	12.625
19980820	8.25	168.82	12.25	6.75	14.438	12.625
19980821	7.875	166.38	11.938	6.063	14.25	12.125
19980824	6.938	165.75	11.875	6.156	14.813	11.875
19980825	6.875	164.7	12.125	6.875	13.969	11.625
19980826	6.938	160.54	11.688	6.75	13.875	11.438
19980827	6.625	154.29	10.563	6.063	13.5	11.125
19980828	6.25	151.06	9.938	5.25	13.688	11
19980831	5.188	142.59	9.875	4.938	12.188	10.063
19980901	6.375	146	9.875	6.188	12.188	9.813
19980902	6.938	148.41	10	6.875	11.906	9.75
19980903	8.563	145.56	9.563	6.438	12	10.25
19980904	6.125	145.92	9.625	6.5	11.25	11.063
19980908	6.125	152.35	9.938	6.938	12.188	10.813
19980909	5.5	148.1	9.938	7.125	11.625	10.25
19980910	4.813	144.91	9.875	6.375	11.438	9.875
19980911	4.75	148.76	9.938	6.625	11.531	9.813
19980914	4.813	151.45	9.875	6.25	11.625	10.25
19980915	4.938	151.45	10.563	6.25	11.625	10.25

EXHIBIT A**ADAMS GOLF INC.**

DATE	ADGO	S&P SML CAP	CALLOW	TEAR- DROP	ALDILA	COAST- CAST
19980916	4.938	152.11	10.938	6.063	11.625	10.688
19980917	4.875	149.72	10.875	5.875	11.813	10.438
19980918	5.063	152.81	11.25	5.813	11.625	10.125
19980921	4.5	151.96	10.688	6	12.188	9.188
19980922	4.438	154.38	10.375	6.375	12.188	9.313
19980923	4.688	157.06	10.688	6.25	12.375	9.25
19980924	4.5	154.14	10.75	6.438	12.188	9
19980925	4.5	153.93	10.75	6.375	11.813	8.813
19980928	4.625	153.76	10.813	6	11.25	8.938
19980929	4	152.26	10.625	6	10.5	8.813
19980930	4.125	151.17	10.563	5.75	10.875	8.438
19981001	4	145.55	10.25	5.625	11.438	8.375
19981002	4.438	145.44	10.5	5.5	12	8.5
19981005	4.563	139.72	10.125	5.25	12	8
19981006	4.875	138.07	10.313	5.5	11.813	8.25
19981007	4.688	133.73	10.313	5.125	11.813	7.438
19981008	4.625	128.7	10.063	4.125	11.25	7
19981009	4.75	132.56	10.063	4.25	11.625	6.875
19981012	5	135.36	10.375	4.375	12	7.375
19981013	4.813	133.61	10.125	4.875	11.25	6.875
19981014	4.969	135.22	10.188	4.625	10.688	7
19981015	5	139.4	10.25	4.969	10.5	7.25
19981016	4.719	143.16	10.938	5	10.5	8
19981019	5	146.88	12	4.875	10.125	8
19981020	4.875	149.67	12.5	5.25	10.5	8.438
19981021	4.625	151.93	12.25	5	10.313	8
19981022	4.625	154.06	11.188	5.063	10.219	7.875
19981023	3.875	154.59	11	5.063	10.5	7.813
19981026	3.688	155.66	10.75	5.625	10.313	8.5
19981027	3.969	155.66	10.188	5.75	10.5	9.063
19981028	4	155.51	11.188	5.5	10.219	8.625
19981029	4.625	157.12	10.813	5.938	10.5	8.438
19981030	4.625	158.08	10.875	6	10.688	8.25
19981102	4.688	162.14	11	5.938	10.875	8.375
19981103	4.625	162.59	10.625	6	10.125	8.5
19981104	4.594	165.07	10.625	5.875	10.313	8.625
19981105	4.5	165.85	10.75	6	9.938	8.188
19981106	4.625	166.98	11	5.75	10.125	8.188
19981109	4.719	165.92	10.875	5.375	10.5	8.125
19981110	4.594	166.27	10.875	5.563	10.594	8.125
19981111	4.75	164.24	10.75	5.375	10.5	8
19981112	4.75	163.87	11.313	5.688	10.688	7.813
19981113	4.625	162.38	11.625	5.688	10.5	7.75
19981116	4.531	162.64	11.688	5.563	10.313	7.875
19981117	4.438	162.18	11.813	5.625	10.313	7.688
19981118	4.375	162.56	12	6	10.219	7.438
19981119	4.156	164.79	12.875	6.938	9.938	7.375
19981120	4.188	165.25	12.438	6.625	9.75	7.188

EXHIBIT A**ADAMS GOLF INC.**

DATE	ADGO	S&P SML CAP	CALLOW	TEAR- DROP	ALDILA	COAST- CAST
19990203	4.5	172.67	10.625	5.031	6.938	7.375
19990204	4.5	169.95	10.625	5.125	6.75	7.375
19990205	4.5	167.53	10.625	5.125	6.375	7.625
19990208	4.375	167.38	10.625	5.25	6.188	7.813
19990209	4.188	164.3	10.375	5.063	6	7.375
19990210	4.063	162.65	10.313	5.094	6	7.375
19990211	4.031	165.35	10.375	5.063	5.063	7.438
19990212	4.125	162.82	11	5.031	5.531	7.313
19990216	4.063	162.16	10.938	5.094	6	7.313
19990217	4.063	159.4	10.688	5	5.438	7.563
19990218	4.031	159.68	10.688	5.031	4.594	7.5
19990219	4	160.07	10.375	4.875	4.313	7.375
19990222	4.063	162.73	10.875	5.063	4.5	7.625
19990223	4	162.73	11.438	4.813	4.594	7.938
19990224	3.938	162	10.813	4.875	4.594	7.813
19990225	4	160.32	10.938	4.688	5.25	7.75
19990226	3.938	159.14	10.875	5.5	5.25	8.125
19990301	4	160.47	10.938	5.375	4.688	8
19990302	3.969	160.74	10.813	5.25	4.875	7.875
19990303	4	160.03	10.938	5.125	4.969	7.938
19990304	3.875	161.45	10.813	5.125	4.875	8.125
19990305	3.875	162.56	10.688	5.188	4.875	7.875
19990308	3.5	163.23	10.813	5.031	4.969	8
19990309	3.75	162.72	10.75	4.875	4.781	8.125
19990310	3.875	163.28	10.688	5	4.594	8.438
19990311	3.813	163.17	10.75	4.75	5.156	8.313
19990312	3.656	162.52	10.313	4.875	5.063	8.625
19990315	3.688	163.22	10.563	5.125	4.922	8.5
19990316	3.688	162.97	10.625	4.969	5.063	8.438
19990317	3.75	162.41	10.563	4.875	5.156	8.5
19990318	3.625	162.11	10.438	4.5	4.875	8.5
19990319	3.625	160.41	10.375	4.563	5.063	8.563
19990322	3.563	158.7	10.313	4.25	5.063	8.688
19990323	3.688	154.83	10.125	4	5.063	8.625
19990324	3.5	155.23	10.188	4	4.875	8.125
19990325	3.625	159.36	10.438	4	5.438	8.313
19990326	3.563	159.05	10	4.063	5.625	8.188
19990329	3.875	161.17	10.063	4.75	6.375	8.375
19990330	3.688	161.9	10.125	4.875	5.719	8.75
19990331	4.25	161.07	10.188	4.963	5.625	9.5
19990401	4.25	161	12.188	4.688	6.281	9.5
19990405	4.25	162.09	13	4.875	6.094	9.063
19990406	4.313	159.97	13.5	4.75	5.625	9.313
19990407	3.938	158.75	12.813	4.75	5.063	9.438
19990408	3.75	158.28	12.438	4.75	5.438	9.25
19990409	3.75	160.79	12.625	4.25	5.438	9.188
19990412	4.063	161.62	12.938	4.5	5.063	9.125
19990413	3.625	162.42	13	4.625	4.875	10.375

EXHIBIT A**ADAMS GOLF INC.**

DATE	ADGO	S&P SML CAP	CALLOW	TEAR- DROP	ALDILA	COAST- CAST
19990414	3.75	164.28	12.688	4.438	4.969	10.563
19990415	3.781	165.14	12.938	4.75	5.438	10.5
19990416	4	167.31	13.813	4.313	5.531	10.75
19990419	3.875	166.59	13.875	4	5.063	10.5
19990420	3.75	166.27	13.563	4	5.438	10.313
19990421	3.813	170.18	13.625	3.75	4.875	10.438
19990422	3.688	170.49	13.875	3.063	4.875	10.438
19990423	3.625	170.65	13.875	3	5.25	10.375
19990426	3.75	171.06	14.063	3.031	5.25	10.188
19990427	3.688	172.27	14.375	3.375	5.438	9.813
19990428	3.875	172.33	14.938	3.25	5.25	9.5
19990429	3.688	172.01	15.625	3.188	5.625	10.25
19990430	3.75	171.62	15.063	3.188	5.25	10.25
19990503	3.625	173.26	15.313	3	5.813	10
19990504	3.563	173.23	15.063	3.031	5.813	9.875
19990505	3.75	173.32	14.438	3.031	5.625	9.688
19990506	3.75	173.31	15.125	3	5.625	10.063
19990507	3.688	173.92	15.5	3	5.438	10.063
19990510	3.563	176.02	15.688	3	5.25	10.125
19990511	3.5	177.3	16.25	3	6	10.188
19990512	3.5	177.59	16.375	3	7.5	10.313
19990513	3.531	179.41	16.625	3	6.563	10.75
19990514	3.5	176.94	16.125	2.906	6.75	10.75
19990517	3.531	175.74	15.875	2.875	6.188	10.625
19990518	3.594	176.06	15.875	2.844	6.188	10.625
19990519	3.5	176.84	15.875	2.938	6.281	10.688
19990520	3.5	178.71	15.813	2.875	7.125	11.188
19990521	3.5	179.85	16	2.875	7.125	11.313
19990524	3.531	177.79	16.188	2.813	6.75	11.188
19990525	3.375	175.68	16.688	2.906	6.188	11
19990526	3.5	175.38	16.438	2.938	6.375	11.563
19990527	3.469	174.34	16.563	2.875	6	11.563
19990528	3.5	175.65	16.313	2.875	5.813	12
19990601	3.406	176.37	16.5	2.75	5.813	11.875
19990602	3.5	176.32	16.375	2.688	5.625	12.125
19990603	3.031	176.09	16.125	2.75	5.625	12.25
19990604	3.125	177.7	16	2.625	5.625	12.125
19990607	3.063	179.1	15.625	2.75	5.25	12
19990608	3.125	178.44	15.375	2.75	6.188	11.938
19990609	3.063	179.16	15.188	2.906	5.625	12.063
19990610	3.063	178.03	14.938	3.063	5.625	12
19990611	3.063	177.28	14.813	3.188	5.625	11.813
19990614	3.031	176.03	15	3.094	5.625	11.938
19990615	3.063	176.74	14.875	3.063	6	11.75
19990616	2.75	178.33	14.563	3.063	6	11.625
19990617	2.625	179.11	14.688	3.125	6.094	11.313
19990618	2.688	179.18	14.438	3.125	6.469	10.75
19990621	2.688	180.29	13.688	2.875	6	10.375

EXHIBIT A**ADAMS GOLF INC.**

DATE	ADGO	S&P SML CAP	CALLOW	TEAR- DROP	ALDILA	COAST- CAST
19990622	2.5	180.56	14.063	2.75	6	10.5
19990623	2.563	180.62	13.938	2.313	6	11.125
19990624	2.688	179.31	13.688	2.5	5.813	11.375
19990625	2.531	179.46	13.5	2.5	5.625	11.438
19990628	2.594	182.07	13.25	2.531	5.625	11.813
19990629	2.563	183.39	14	2.75	5.813	11.875
19990630	2.563	185.52	14.625	2.625	5.531	12.75
19990701	2.625	186.38	14.625	2.688	6	12.25
19990702	2.719	187.23	14.125	2.688	6	12
19990706	2.563	187.3	14.5	2.563	6	11.875
19990707	2.563	185.45	14.375	2.625	5.813	11.313
19990708	2.594	185.98	14.063	2.625	5.813	11.188
19990709	2.625	186.94	14.25	2.75	5.906	11.188
19990712	2.594	187.78	14.125	2.688	5.625	11.188
19990713	2.563	187.15	13.875	2.75	5.438	11.438
19990714	2.563	188.11	13.625	2.625	5.625	11.5
19990715	2.813	189.54	13.438	2.625	5.813	11.563
19990716	2.875	190.15	13.25	2.625	5.438	11.625
19990719	2.969	188.26	13.25	2.563	5.813	11.375
19990720	3.063	185.49	13.375	2.5	5.25	12.438
19990721	2.781	185.67	13.375	2.5	5.438	12.625
19990722	2.875	184.79	13.375	2.438	5.438	12.813
19990723	2.75	184.16	13.125	2.5	5.625	12.688
19990726	2.563	182.24	12.625	2.563	5.25	12.688
19990727	2.531	183.27	12.688	2.594	5.063	12.75
19990728	2.563	183.64	13.063	2.5	5.063	12.563
19990729	2.563	182.68	11.813	2.688	4.969	12.125
19990730	2.625	183.8	11.563	2.688	4.781	12.375
19990802	2.625	183.11	10.938	2.75	4.875	11.938
19990803	2.813	180.79	10.938	2.625	4.5	11.813
19990804	2.688	178.98	10.75	2.375	4.594	11.875
19990805	2.563	178.15	10.438	2.25	4.594	11.563
19990806	2.531	177.25	10.188	2.406	4.875	11.563
19990809	2.5	176.68	10	2.188	4.781	11.563
19990810	2.375	175.47	9.313	2.188	4.5	10.938
19990811	2.375	177.22	10.813	2.188	4.5	11.125
19990812	2.375	177.52	10.75	2.313	4.781	11
19990813	2.438	179.85	10.813	2.281	4.5	11.063
19990816	2.469	179.48	10.75	2.406	4.5	11.188
19990817	2.313	180.22	10.563	2.406	4.5	11.063
19990818	2.313	179.46	10.625	2.313	4.594	11.25
19990819	2.25	179.33	10.688	2.188	3.938	11.188
19990820	2.156	179.72	10.625	2.188	3.75	11.625
19990823	2.313	180.88	10.813	2.438	3.75	12
19990824	2.313	180.6	10.875	2.5	4.125	11.813
19990825	2.313	180.27	10.625	2.5	3.938	11.875
19990826	2.156	179.02	10.5	2.25	3.938	11.875
19990827	2.281	177.41	10.375	2.25	3.75	11.688

EXHIBIT A**ADAMS GOLF INC.**

DATE	ADGO	S&P SML CAP	CALLOW	TEAR- DROP	ALDILA	COAST- CAST
19990830	2.188	176.48	10.063	2.219	3.563	11.5
19990831	2.969	175.57	10	2.125	3.938	12.5
19990901	3.313	177.89	10.625	2.063	3.75	11.938
19990902	3.469	176.46	10.375	2.063	3.938	11.75
19990903	3.5	180.12	10.438	1.281	3.844	11.375
19990907	3.438	181	10.188	1.438	3.938	11
19990908	3.313	179.96	10	1.375	3.844	11
19990909	3.438	180.66	10.125	1.375	3.844	10.938
19990910	3.75	181.77	10.188	1.438	3.75	10.75
19990913	3.625	180.97	10.375	1.438	3.75	10.625
19990914	3.375	180.41	11.375	1.469	3.75	10.938
19990915	3.5	179.96	11.563	1.75	4.125	11.313
19990916	3.375	177.9	11.188	1.688	3.938	11.25
19990917	3.313	179.13	11.5	1.625	4.125	11.313
19990920	3.625	178.33	12.188	1.656	4.125	11.313
19990921	3.625	175.9	11.938	1.75	3.938	11.125
19990922	3.5	175.96	12.438	1.938	4.406	11
19990923	3.375	172.91	12.875	1.875	4.125	11.125
19990924	3.438	171.37	12.438	1.75	4.5	11.25
19990927	3.25	173.95	12.688	1.625	4.219	11.313
19990928	3.188	172.57	12.25	1.875	3.938	11.125
19990929	3	173.87	12.063	1.875	4.313	11.25
19990930	3.063	176.2	12.188	1.875	3.75	12.5
19991001	2.625	174.52	12	1.875	3.938	12
19991004	2.875	175.91	11.875	2.25	4.5	12
19991005	2.75	175.58	11.875	2.5	3.75	12
19991006	3.188	177.22	11.875	2.5	4.125	11.438
19991007	3	176.07	12.25	2.5	4.031	11.375
19991008	2.938	175.71	12.688	2.656	4.031	11.438
19991011	2.875	176.78	13.063	2.75	4.125	10.875
19991012	2.844	174.66	12.75	2.938	4.125	11.125
19991013	2.75	172.34	12.125	2.75	3.563	10.875
19991014	2.906	172.49	12.5	2.875	4.125	11
19991015	2.875	170.95	12.125	2.656	3.75	11
19991018	2.875	168.96	11.938	2.688	3.938	11.375
19991019	2.75	169.92	12	2.625	3.938	11.5
19991020	2.656	170.59	11.688	2.75	3.75	11.5
19991021	2.688	170.15	12.063	2.875	3.844	11.813
19991022	2.75	172.41	13.125	2.781	3.938	12.125
19991025	2.625	171.58	12.938	2.969	3.375	12.313
19991026	2.5	171.17	13.063	2.813	3.375	12.75
19991027	2.531	171.24	13.125	2.75	3.75	12.625
19991028	2.5	174.11	13.5	2.75	4.031	13.25
19991029	2.375	175.67	13.438	2.813	3.75	13.25
19991101	2.313	177.09	13.188	2.688	3.75	12.875
19991102	2.25	177.3	13	2.75	4.125	13
19991103	2.25	179.44	13	2.75	4.313	12.875
19991104	2.5	179.86	13.25	2.625	4.125	12.813

EXHIBIT A**ADAMS GOLF INC.**

DATE	ADGO	S&P SML CAP	CALLOW	TEAR- DROP	ALDILA	COAST- CAST
19991105	2.281	180.21	13.125	2.625	4.313	12.625
19991108	2.25	180.28	12.813	2.25	4.406	12.875
19991109	2.25	180.4	12.625	1.875	4.5	12.75
19991110	2.313	180.86	13.313	1.875	4.594	12.75
19991111	2.188	180.79	13.5	2.063	4.594	12.625
19991112	2.125	182.04	13.813	2.313	4.594	12.625
19991115	2.281	183.29	14.063	2.125	4.5	12.688
19991116	2.344	184.95	14.063	2.125	4.406	12.563
19991117	2.25	185.28	13.688	2	4.406	12.625
19991118	2.188	187.11	13.938	2	4.5	12.625
19991119	2.156	186.33	13.875	2	4.5	12.563
19991122	2.156	185.95	14	2.063	3.938	12.563
19991123	2.125	183.73	14.125	2.063	3.938	12.625
19991124	2.125	183.76	14.813	2.125	3.938	12.563
19991126	2.125	184.6	14.75	2.063	3.938	12.75
19991129	2.125	183.68	14.625	2.063	3.938	12.75
19991130	2.063	182.97	14.563	1.938	3.938	13
19991201	2.125	182.84	15.125	2	4.031	12.75
19991202	2.156	185.08	15.25	1.906	3.938	12.438
19991203	2.125	187.17	15.313	2	4.031	12.438
19991206	2.125	187.05	15.063	1.688	4.125	12.125
19991207	2.031	186.33	14.688	1.688	4.125	12.813
19991208	2	187.17	14.563	1.75	3.938	12.75
19991209	1.969	185.06	14.25	1.688	3.938	12.75
19991210	2.063	185.93	14.563	1.719	3.938	12.625
19991213	2.063	185.63	14.938	1.688	4.031	12.75
19991214	2	182.98	15.438	1.75	3.938	12.75
19991215	1.969	183.29	16.5	1.688	4.031	12.813
19991216	1.875	184.71	16.438	1.563	3.938	12.75
19991217	1.781	184.67	15.813	1.563	3.938	12.938
19991220	1.969	185.19	16	1.563	3.844	13.625
19991221	1.969	188.01	16.688	1.5	3.844	14.625
19991222	1.969	188.51	16.125	1.5	3.844	14.188
19991223	1.938	189.86	16.75	1.375	4.313	13.875
19991227	1.844	192.2	18	1.688	4.219	13.5
19991228	1.75	193.17	17.625	1.594	4.125	14.375
19991229	1.844	195.47	17.375	1.438	4.125	15
19991230	1.875	194.58	17.563	1.281	4.031	15.375
19991231	1.625	197.79	17.688	1.375	4.125	16.625

**Adams Golf Inc. vs.
Comparables
Indexed to 1.0 on 7/9/98
7/9/98 to 12/31/99**

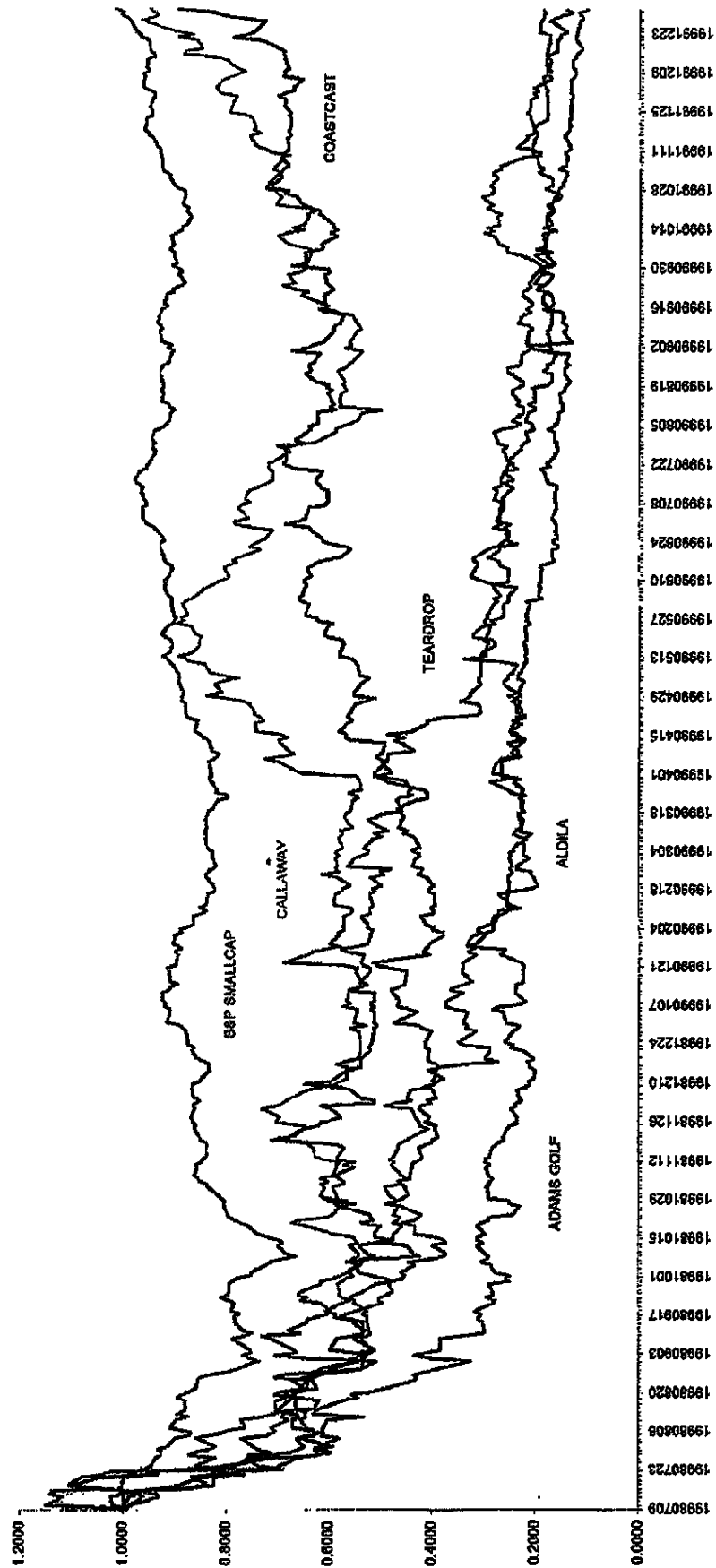


EXHIBIT A

ADGOVS.XLC (2)

**Adams Golf Inc. vs.
Comparables
Indexed to 1.0 on 7/9/98
7/9/98 to 12/31/99**

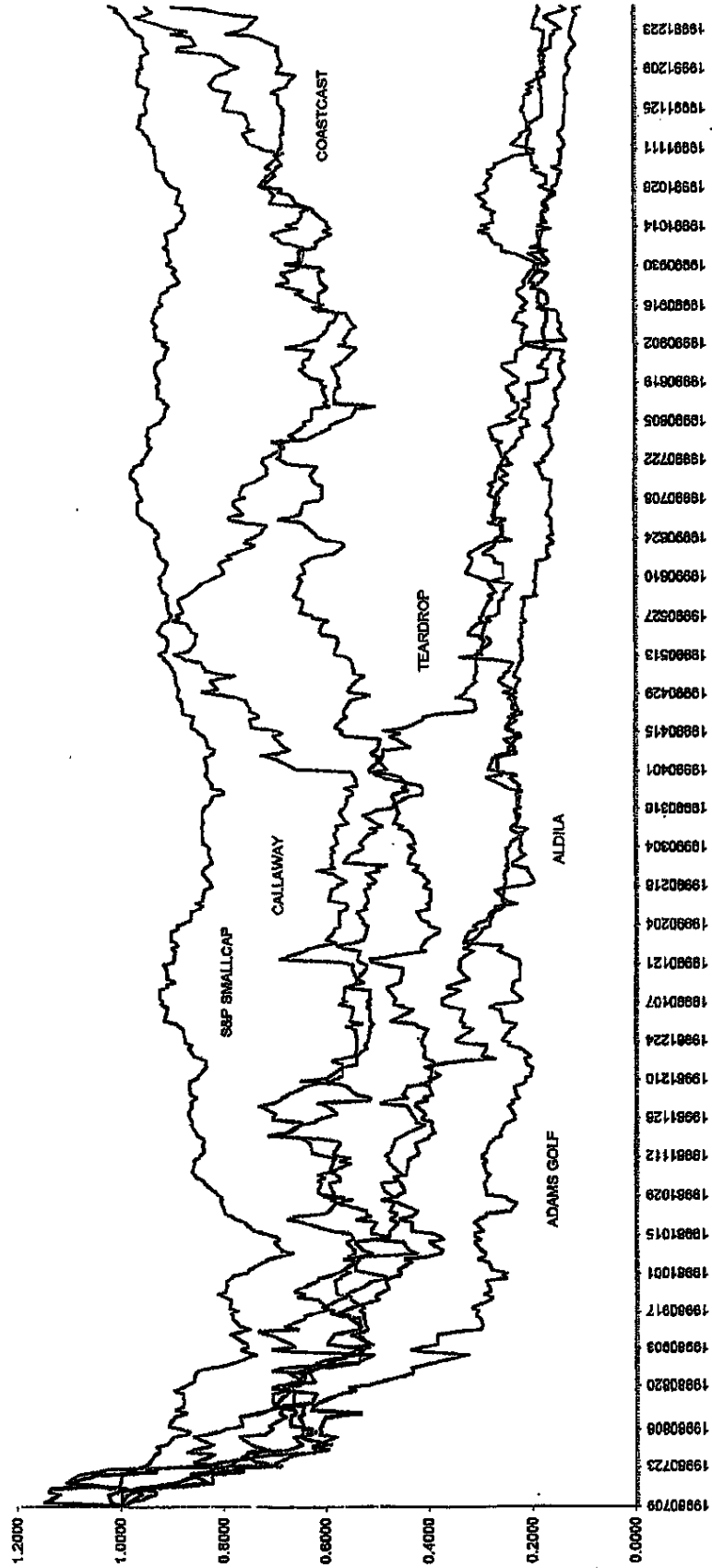


EXHIBIT A**ADAMS GOLF INC.**

Indexed to 1.0 on 7/9/98

DATE	ADGO	S&P SML CAP	CALLAW	TEAR- DROP	ALDILA	COAST- CAST
19980709	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
19980710	1.1484	0.9964	0.9865	1.0000	0.9831	1.0203
19980713	1.1172	0.9986	0.9596	0.9872	0.9322	1.0237
19980714	1.1406	0.9991	0.9697	0.9744	0.9322	1.0034
19980715	1.1368	1.0031	0.9899	0.9487	0.9576	0.9696
19980716	1.0391	1.0040	1.0606	0.8911	0.8644	0.9291
19980717	1.1016	1.0017	1.1043	0.8333	0.8221	0.8919
19980720	1.0430	0.9984	1.0808	0.8654	0.8221	0.8446
19980721	0.9336	0.9863	1.0404	0.8205	0.7627	0.7905
19980722	0.9531	0.9720	1.0235	0.8270	0.8221	0.7770
19980723	0.8321	0.9523	0.6869	0.8270	0.7882	0.7027
19980724	0.8047	0.9459	0.7374	0.8590	0.7797	0.6959
19980727	0.7149	0.9347	0.7576	0.8205	0.7543	0.6622
19980728	0.6211	0.9249	0.7239	0.8718	0.7543	0.6284
19980729	0.6211	0.9253	0.6734	0.8590	0.7119	0.5946
19980730	0.6269	0.9312	0.6599	0.8333	0.7373	0.6216
19980731	0.6211	0.9129	0.6464	0.8205	0.7458	0.5912
19980803	0.5781	0.8983	0.6633	0.8590	0.7691	0.6554
19980804	0.6133	0.8708	0.6464	0.8333	0.7204	0.6284
19980805	0.6094	0.8676	0.6195	0.8077	0.7119	0.6284
19980806	0.6133	0.8871	0.6464	0.7949	0.7034	0.6284
19980807	0.6094	0.9079	0.6431	0.7629	0.7119	0.6689
19980810	0.6016	0.8961	0.6532	0.7692	0.6780	0.6689
19980811	0.5313	0.8742	0.6431	0.7308	0.6907	0.6588
19980812	0.6289	0.8941	0.6464	0.7116	0.6865	0.6622
19980813	0.6250	0.8803	0.6431	0.6923	0.6865	0.7027
19980814	0.6172	0.8778	0.6633	0.6282	0.7034	0.6959
19980817	0.5703	0.8807	0.6633	0.6186	0.7034	0.6757
19980818	0.5430	0.8963	0.6599	0.6667	0.6780	0.6689
19980819	0.5547	0.8826	0.6734	0.7051	0.6780	0.6824
19980820	0.5156	0.8717	0.6599	0.6923	0.6526	0.6824
19980821	0.4922	0.8591	0.6431	0.6218	0.6441	0.6554
19980824	0.4336	0.8559	0.6397	0.6314	0.6695	0.6419
19980825	0.4297	0.8505	0.6532	0.7051	0.6314	0.6284
19980826	0.4336	0.8290	0.6296	0.6923	0.6271	0.6183
19980827	0.4141	0.7967	0.5690	0.6218	0.6102	0.6014
19980828	0.3906	0.7800	0.5354	0.5385	0.6187	0.5946
19980831	0.3243	0.7363	0.5320	0.5065	0.5509	0.5439
19980901	0.3984	0.7539	0.5320	0.6347	0.5509	0.5304
19980902	0.4336	0.7663	0.5387	0.7051	0.5381	0.5270
19980903	0.4102	0.7516	0.5152	0.6603	0.5424	0.5541
19980904	0.3828	0.7535	0.5185	0.6667	0.5085	0.5980
19980908	0.3828	0.7867	0.5354	0.7116	0.5509	0.5845
19980909	0.3438	0.7647	0.5354	0.7308	0.5254	0.5541
19980910	0.3008	0.7483	0.5320	0.6538	0.5170	0.5338
19980911	0.2969	0.7682	0.5354	0.6795	0.5212	0.5304
19980914	0.3008	0.7820	0.5320	0.6410	0.5254	0.5541
19980915	0.3086	0.7820	0.5690	0.6410	0.5254	0.5541

EXHIBIT A**ADAMS GOLF INC.**

Indexed to 1.0 on 7/9/98

DATE	ADGO	S&P SML CAP	CALLAW	TEAR- DROP	ALDILA	COAST- CAST
19980916	0.3086	0.7854	0.5892	0.6218	0.5254	0.5777
19980917	0.3047	0.7731	0.5858	0.6026	0.5339	0.5642
19980918	0.3164	0.7891	0.6060	0.5962	0.5254	0.5473
19980921	0.2813	0.7847	0.5758	0.6154	0.5509	0.4966
19980922	0.2774	0.7972	0.5589	0.6538	0.5509	0.5034
19980923	0.2930	0.8110	0.5758	0.6410	0.5593	0.5000
19980924	0.2813	0.7959	0.5791	0.6603	0.5509	0.4865
19980925	0.2813	0.7948	0.5791	0.6538	0.5339	0.4764
19980928	0.2891	0.7940	0.5825	0.6154	0.5085	0.4831
19980929	0.2500	0.7862	0.5724	0.6154	0.4746	0.4764
19980930	0.2578	0.7806	0.5690	0.5897	0.4915	0.4561
19981001	0.2500	0.7516	0.5522	0.5769	0.5170	0.4527
19981002	0.2774	0.7510	0.5656	0.5641	0.5424	0.4595
19981005	0.2852	0.7215	0.5454	0.5385	0.5424	0.4324
19981006	0.3047	0.7130	0.5556	0.5641	0.5339	0.4459
19981007	0.2930	0.6905	0.5556	0.5256	0.5339	0.4021
19981008	0.2891	0.6646	0.5421	0.4231	0.5085	0.3784
19981009	0.2969	0.6845	0.5421	0.4359	0.5254	0.3716
19981012	0.3125	0.6990	0.5589	0.4487	0.5424	0.3986
19981013	0.3008	0.6899	0.5454	0.5000	0.5085	0.3716
19981014	0.3106	0.6982	0.5488	0.4744	0.4831	0.3784
19981015	0.3125	0.7198	0.5522	0.5096	0.4746	0.3919
19981016	0.2949	0.7392	0.5892	0.5128	0.4746	0.4324
19981019	0.3125	0.7584	0.6464	0.5000	0.4576	0.4324
19981020	0.3047	0.7728	0.6734	0.5385	0.4746	0.4561
19981021	0.2891	0.7845	0.6599	0.5128	0.4661	0.4324
19981022	0.2891	0.7955	0.6027	0.5193	0.4619	0.4257
19981023	0.2422	0.7983	0.5926	0.5193	0.4746	0.4223
19981026	0.2305	0.8038	0.5791	0.5769	0.4661	0.4595
19981027	0.2481	0.8038	0.5488	0.5897	0.4746	0.4899
19981028	0.2500	0.8030	0.6027	0.5641	0.4619	0.4662
19981029	0.2891	0.8113	0.5825	0.6090	0.4746	0.4561
19981030	0.2891	0.8163	0.5858	0.6154	0.4831	0.4459
19981102	0.2930	0.8372	0.5926	0.6090	0.4915	0.4527
19981103	0.2891	0.8396	0.5724	0.6154	0.4576	0.4595
19981104	0.2871	0.8524	0.5724	0.6026	0.4661	0.4662
19981105	0.2813	0.8564	0.5791	0.6154	0.4492	0.4426
19981106	0.2891	0.8622	0.5926	0.5897	0.4576	0.4426
19981109	0.2949	0.8568	0.5858	0.5513	0.4746	0.4392
19981110	0.2871	0.8586	0.5858	0.5706	0.4788	0.4392
19981111	0.2969	0.8481	0.5791	0.5513	0.4746	0.4324
19981112	0.2969	0.8462	0.6094	0.5834	0.4831	0.4223
19981113	0.2891	0.8385	0.6262	0.5834	0.4746	0.4189
19981116	0.2832	0.8398	0.6296	0.5706	0.4661	0.4257
19981117	0.2774	0.8374	0.6364	0.5769	0.4661	0.4156
19981118	0.2734	0.8394	0.6464	0.6154	0.4619	0.4021
19981119	0.2598	0.8509	0.6936	0.7116	0.4492	0.3986
19981120	0.2618	0.8533	0.6700	0.6795	0.4407	0.3885

EXHIBIT A**ADAMS GOLF INC.**

Indexed to 1.0 on 7/9/98

DATE	ADGO	S&P SML CAP	CALLAW	TEAR- DROP	ALDILA	COAST- CAST
19981123	0.2539	0.8631	0.6498	0.6475	0.4068	0.3953
19981124	0.2481	0.8603	0.6464	0.6218	0.4237	0.3919
19981125	0.2344	0.8640	0.7037	0.6154	0.4237	0.4122
19981127	0.2344	0.8692	0.6970	0.5769	0.4322	0.4054
19981130	0.2461	0.8615	0.7306	0.5962	0.4407	0.4257
19981201	0.2363	0.8648	0.7003	0.6154	0.4915	0.4223
19981202	0.2383	0.8598	0.6902	0.5128	0.4746	0.4021
19981203	0.2246	0.8516	0.6835	0.5128	0.4407	0.4088
19981204	0.2305	0.8642	0.6734	0.5385	0.4492	0.3919
19981207	0.2344	0.8667	0.6397	0.5577	0.4407	0.3986
19981208	0.2188	0.8671	0.6195	0.5769	0.3983	0.4156
19981209	0.2109	0.8654	0.5892	0.6475	0.3983	0.3953
19981210	0.2129	0.8507	0.5758	0.5962	0.3898	0.3986
19981211	0.2031	0.8491	0.5656	0.5897	0.3771	0.3953
19981214	0.1993	0.8327	0.5656	0.5641	0.4068	0.3919
19981215	0.2109	0.8348	0.5656	0.5385	0.3814	0.3885
19981216	0.2109	0.8333	0.5858	0.5385	0.3390	0.3919
19981217	0.2149	0.8440	0.5690	0.5385	0.2712	0.4054
19981218	0.2031	0.8581	0.5421	0.5385	0.2966	0.4088
19981221	0.2227	0.8674	0.5387	0.5193	0.2881	0.4054
19981222	0.2461	0.8627	0.5387	0.5225	0.2881	0.4122
19981223	0.2422	0.8751	0.5387	0.5193	0.3390	0.4122
19981224	0.2578	0.8753	0.5387	0.5160	0.3475	0.4122
19981228	0.2422	0.8792	0.5421	0.5128	0.3136	0.4021
19981229	0.2344	0.8856	0.5589	0.5128	0.3347	0.4189
19981230	0.2305	0.8916	0.5286	0.5065	0.3305	0.4257
19981231	0.2559	0.9158	0.5522	0.5128	0.3390	0.4730
19990104	0.2618	0.9109	0.5454	0.5128	0.3305	0.4291
19990105	0.2813	0.9105	0.5454	0.5193	0.3559	0.4459
19990106	0.2696	0.9215	0.5724	0.5128	0.3729	0.4662
19990107	0.2266	0.9188	0.5589	0.5193	0.3729	0.4662
19990108	0.2188	0.9238	0.5656	0.5128	0.3729	0.4629
19990111	0.2383	0.9253	0.5623	0.5128	0.3390	0.4764
19990112	0.2383	0.9121	0.5623	0.5609	0.3644	0.4797
19990113	0.2363	0.9106	0.5454	0.5416	0.3559	0.4662
19990114	0.2363	0.8952	0.5387	0.5256	0.3390	0.4527
19990115	0.2227	0.9108	0.5387	0.5385	0.3220	0.4527
19990119	0.2227	0.9118	0.5488	0.5193	0.3432	0.4494
19990120	0.2227	0.9170	0.5454	0.5193	0.3390	0.4831
19990121	0.2227	0.8987	0.5690	0.5321	0.3390	0.5068
19990122	0.2266	0.8975	0.6902	0.5385	0.3390	0.5135
19990125	0.2656	0.8947	0.6397	0.5321	0.3136	0.4054
19990126	0.2618	0.9010	0.6330	0.5641	0.3305	0.4156
19990127	0.2578	0.8890	0.6060	0.5769	0.3220	0.4122
19990128	0.3321	0.8940	0.5791	0.5449	0.3136	0.4088
19990129	0.3144	0.9040	0.5993	0.5256	0.3305	0.4054
19990201	0.2988	0.9022	0.5825	0.5193	0.3220	0.3784
19990202	0.2969	0.8884	0.5825	0.5193	0.3051	0.3784

EXHIBIT A**ADAMS GOLF INC.**

Indexed to 1.0 on 7/9/98

DATE	ADGO	S&P SML CAP	CALLAW	TEAR- DROP	ALDILA	COAST- CAST
19990203	0.2813	0.8916	0.5724	0.5160	0.3136	0.3986
19990204	0.2813	0.8776	0.5724	0.5256	0.3051	0.3986
19990205	0.2813	0.8651	0.5724	0.5256	0.2881	0.4122
19990208	0.2734	0.8643	0.5724	0.5385	0.2797	0.4223
19990209	0.2618	0.8484	0.5589	0.5193	0.2712	0.3986
19990210	0.2539	0.8399	0.5556	0.5225	0.2712	0.3986
19990211	0.2519	0.8538	0.5589	0.5193	0.2288	0.4021
19990212	0.2578	0.8408	0.5926	0.5160	0.2500	0.3953
19990216	0.2539	0.8373	0.5892	0.5225	0.2712	0.3953
19990217	0.2539	0.8231	0.5758	0.5128	0.2458	0.4088
19990218	0.2519	0.8245	0.5758	0.5160	0.2076	0.4054
19990219	0.2500	0.8266	0.5589	0.5000	0.1949	0.3986
19990222	0.2539	0.8403	0.5858	0.5193	0.2034	0.4122
19990223	0.2500	0.8403	0.6162	0.4936	0.2076	0.4291
19990224	0.2461	0.8365	0.5825	0.5000	0.2076	0.4223
19990225	0.2500	0.8278	0.5892	0.4808	0.2373	0.4189
19990226	0.2461	0.8217	0.5858	0.5641	0.2373	0.4392
19990301	0.2500	0.8286	0.5892	0.5513	0.2119	0.4324
19990302	0.2481	0.8300	0.5825	0.5385	0.2203	0.4257
19990303	0.2500	0.8263	0.5892	0.5256	0.2246	0.4291
19990304	0.2422	0.8337	0.5825	0.5256	0.2203	0.4392
19990305	0.2422	0.8394	0.5758	0.5321	0.2203	0.4257
19990308	0.2188	0.8429	0.5825	0.5160	0.2246	0.4324
19990309	0.2344	0.8402	0.5791	0.5000	0.2161	0.4392
19990310	0.2422	0.8431	0.5758	0.5128	0.2076	0.4561
19990311	0.2383	0.8426	0.5791	0.4872	0.2330	0.4494
19990312	0.2285	0.8392	0.5556	0.5000	0.2288	0.4662
19990315	0.2305	0.8428	0.5690	0.5256	0.2225	0.4595
19990316	0.2305	0.8415	0.5724	0.5096	0.2288	0.4561
19990317	0.2344	0.8386	0.5690	0.5000	0.2330	0.4595
19990318	0.2266	0.8371	0.5623	0.4615	0.2203	0.4595
19990319	0.2266	0.8283	0.5589	0.4690	0.2288	0.4629
19990322	0.2227	0.8195	0.5556	0.4359	0.2288	0.4696
19990323	0.2305	0.7995	0.5454	0.4103	0.2288	0.4662
19990324	0.2188	0.8016	0.5488	0.4103	0.2203	0.4392
19990325	0.2266	0.8229	0.5623	0.4103	0.2458	0.4494
19990326	0.2227	0.8213	0.5387	0.4167	0.2542	0.4426
19990329	0.2422	0.8322	0.5421	0.4872	0.2881	0.4527
19990330	0.2305	0.8360	0.5454	0.5000	0.2585	0.4730
19990331	0.2656	0.8317	0.5488	0.5080	0.2542	0.5135
19990401	0.2656	0.8314	0.6566	0.4808	0.2839	0.5135
19990405	0.2656	0.8370	0.7003	0.5000	0.2754	0.4899
19990406	0.2696	0.8260	0.7273	0.4872	0.2542	0.5034
19990407	0.2461	0.8197	0.6902	0.4872	0.2288	0.5102
19990408	0.2344	0.8173	0.6700	0.4872	0.2458	0.5000
19990409	0.2344	0.8303	0.6801	0.4359	0.2458	0.4966
19990412	0.2539	0.8346	0.6970	0.4615	0.2288	0.4932
19990413	0.2266	0.8387	0.7003	0.4744	0.2203	0.5608

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DATE	ADGO	S&P SML CAP	CALLAW	TEAR- DROP	ALDILA	COAST- CAST
19990414	0.2344	0.8483	0.6835	0.4552	0.2246	0.5710
19990415	0.2363	0.8527	0.6970	0.4872	0.2458	0.5676
19990416	0.2500	0.8639	0.7441	0.4424	0.2500	0.5811
19990419	0.2422	0.8602	0.7475	0.4103	0.2288	0.5676
19990420	0.2344	0.8586	0.7306	0.4103	0.2458	0.5575
19990421	0.2383	0.8788	0.7340	0.3846	0.2203	0.5642
19990422	0.2305	0.8804	0.7475	0.3142	0.2203	0.5642
19990423	0.2266	0.8812	0.7475	0.3077	0.2373	0.5608
19990426	0.2344	0.8833	0.7576	0.3109	0.2373	0.5507
19990427	0.2305	0.8895	0.7744	0.3462	0.2458	0.5304
19990428	0.2422	0.8899	0.8047	0.3333	0.2373	0.5135
19990429	0.2305	0.8882	0.8417	0.3270	0.2542	0.5541
19990430	0.2344	0.8862	0.8115	0.3270	0.2373	0.5541
19990503	0.2266	0.8947	0.8249	0.3077	0.2627	0.5405
19990504	0.2227	0.8945	0.8115	0.3109	0.2627	0.5338
19990505	0.2344	0.8950	0.7778	0.3109	0.2542	0.5237
19990506	0.2344	0.8949	0.8148	0.3077	0.2542	0.5439
19990507	0.2305	0.8981	0.8350	0.3077	0.2458	0.5439
19990510	0.2227	0.9089	0.8451	0.3077	0.2373	0.5473
19990511	0.2188	0.9155	0.8754	0.3077	0.2712	0.5507
19990512	0.2188	0.9170	0.8821	0.3077	0.3390	0.5575
19990513	0.2207	0.9264	0.8956	0.3077	0.2966	0.5811
19990514	0.2188	0.9137	0.8687	0.2981	0.3051	0.5811
19990517	0.2207	0.9075	0.8552	0.2949	0.2797	0.5743
19990518	0.2246	0.9091	0.8552	0.2917	0.2797	0.5743
19990519	0.2188	0.9131	0.8552	0.3013	0.2839	0.5777
19990520	0.2188	0.9228	0.8519	0.2949	0.3220	0.6048
19990521	0.2188	0.9287	0.8619	0.2949	0.3220	0.6115
19990524	0.2207	0.9181	0.8721	0.2885	0.3051	0.6048
19990525	0.2109	0.9072	0.8990	0.2981	0.2797	0.5946
19990526	0.2188	0.9056	0.8855	0.3013	0.2881	0.6250
19990527	0.2168	0.9002	0.8923	0.2949	0.2712	0.6250
19990528	0.2188	0.9070	0.8788	0.2949	0.2627	0.6486
19990601	0.2129	0.9107	0.8889	0.2821	0.2627	0.6419
19990602	0.2188	0.9105	0.8821	0.2757	0.2542	0.6554
19990603	0.1894	0.9093	0.8687	0.2821	0.2542	0.6622
19990604	0.1953	0.9176	0.8619	0.2692	0.2542	0.6554
19990607	0.1914	0.9248	0.8417	0.2821	0.2373	0.6486
19990608	0.1953	0.9214	0.8283	0.2821	0.2797	0.6453
19990609	0.1914	0.9251	0.8182	0.2981	0.2542	0.6521
19990610	0.1914	0.9193	0.8047	0.3142	0.2542	0.6486
19990611	0.1914	0.9154	0.7980	0.3270	0.2542	0.6385
19990614	0.1894	0.9090	0.8081	0.3173	0.2542	0.6453
19990615	0.1914	0.9126	0.8013	0.3142	0.2712	0.6351
19990616	0.1719	0.9208	0.7845	0.3142	0.2712	0.6284
19990617	0.1641	0.9249	0.7913	0.3205	0.2754	0.6115
19990618	0.1680	0.9252	0.7778	0.3205	0.2924	0.5811
19990621	0.1680	0.9310	0.7374	0.2949	0.2712	0.5608

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DATE	ADGO	S&P SML CAP	CALLAW	TEAR- DROP	ALDILA	COAST- CAST
19990622	0.1563	0.9324	0.7576	0.2821	0.2712	0.5676
19990623	0.1602	0.9327	0.7508	0.2372	0.2712	0.6014
19990624	0.1680	0.9259	0.7374	0.2564	0.2627	0.6149
19990625	0.1582	0.9267	0.7273	0.2564	0.2542	0.6183
19990628	0.1621	0.9402	0.7138	0.2596	0.2542	0.6385
19990629	0.1602	0.9470	0.7542	0.2821	0.2627	0.6419
19990630	0.1602	0.9580	0.7879	0.2692	0.2500	0.6892
19990701	0.1641	0.9624	0.7879	0.2757	0.2712	0.6622
19990702	0.1699	0.9668	0.7609	0.2757	0.2712	0.6486
19990706	0.1602	0.9672	0.7811	0.2629	0.2712	0.6419
19990707	0.1602	0.9576	0.7744	0.2692	0.2627	0.6115
19990708	0.1621	0.9603	0.7576	0.2692	0.2627	0.6048
19990709	0.1641	0.9653	0.7677	0.2821	0.2669	0.6048
19990712	0.1621	0.9696	0.7609	0.2757	0.2542	0.6048
19990713	0.1602	0.9664	0.7475	0.2821	0.2458	0.6183
19990714	0.1602	0.9713	0.7340	0.2692	0.2542	0.6216
19990715	0.1758	0.9787	0.7239	0.2692	0.2627	0.6250
19990716	0.1797	0.9819	0.7138	0.2692	0.2458	0.6284
19990719	0.1856	0.9721	0.7138	0.2629	0.2627	0.6149
19990720	0.1914	0.9578	0.7205	0.2564	0.2373	0.6723
19990721	0.1738	0.9587	0.7205	0.2564	0.2458	0.6824
19990722	0.1797	0.9542	0.7205	0.2501	0.2458	0.6926
19990723	0.1719	0.9509	0.7071	0.2564	0.2542	0.6858
19990726	0.1602	0.9410	0.6801	0.2629	0.2373	0.6858
19990727	0.1582	0.9463	0.6835	0.2661	0.2288	0.6892
19990728	0.1602	0.9483	0.7037	0.2564	0.2288	0.6791
19990729	0.1602	0.9433	0.6364	0.2757	0.2246	0.6554
19990730	0.1641	0.9491	0.6229	0.2757	0.2161	0.6689
19990802	0.1641	0.9455	0.5892	0.2821	0.2203	0.6453
19990803	0.1758	0.9335	0.5892	0.2692	0.2034	0.6385
19990804	0.1680	0.9242	0.5791	0.2436	0.2076	0.6419
19990805	0.1602	0.9199	0.5623	0.2308	0.2076	0.6250
19990806	0.1582	0.9153	0.5488	0.2468	0.2203	0.6250
19990809	0.1563	0.9123	0.5387	0.2244	0.2161	0.6250
19990810	0.1484	0.9061	0.5017	0.2244	0.2034	0.5912
19990811	0.1484	0.9151	0.5825	0.2244	0.2034	0.6014
19990812	0.1484	0.9167	0.5791	0.2372	0.2161	0.5946
19990813	0.1524	0.9287	0.5825	0.2339	0.2034	0.5980
19990816	0.1543	0.9268	0.5791	0.2468	0.2034	0.6048
19990817	0.1446	0.9306	0.5690	0.2468	0.2034	0.5980
19990818	0.1446	0.9267	0.5724	0.2372	0.2076	0.6081
19990819	0.1406	0.9260	0.5758	0.2244	0.1780	0.6048
19990820	0.1348	0.9280	0.5724	0.2244	0.1695	0.6284
19990823	0.1446	0.9340	0.5825	0.2501	0.1695	0.6486
19990824	0.1446	0.9326	0.5858	0.2564	0.1864	0.6385
19990825	0.1446	0.9309	0.5724	0.2564	0.1780	0.6419
19990826	0.1348	0.9244	0.5656	0.2308	0.1780	0.6419
19990827	0.1426	0.9161	0.5589	0.2308	0.1695	0.6318